

# Quality Assurance in Open, Distance and E-Learning

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## Preamble

In 1999, Peter Drucker predicted that in the next 50 years, *“schools and universities will change more drastically than they have since they assumed their present form 300 years ago when they organized themselves around the printed book”*.<sup>2</sup> Drucker was not alone in his pronouncements. There are others as well. Some twenty years ago Gardner the then Secretary of Education of the US under President Lyndon Johnson, futurologist and Stanford Professor of Education said *“I am entirely certain that 20 years from now we will look back at education as it is practiced in most schools today and wonder that we could have tolerated anything so primitive”*<sup>3</sup>. He seemed to have had in mind an education universe that would be driven by intelligent technologies and education systems transformed to use all of the potential of such technologies.

The Technology universe imagined in 1989 has certainly come to pass and will continue to move higher and higher in value in the food chain. Education systems, however, sadly have so far been slow to utilize the new assets at their disposal. Even as recent as ten years ago the choice of technologies for purposes of delivering education was somewhat limited, partly because they were expensive, analogue stand-alone appliances with limited versatility;

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<sup>2</sup>Drucker, P. [1999]: *Beyond the Information Revolution*. The Atlantic Monthly, October 1999.

<sup>3</sup>Gardner, J.W. [1996]: as quoted by Jim Carroll in *Surviving the Information Age*. Canada, Prentice Hall

requiring many skilled technicians to create and deliver the product. Radio and television are prime examples of the demand that these technologies made on educational systems. Those that did not fall into this category such as overhead projectors, slide projectors, etc., consequently, had limited reach.

- The picture now is completely different. Limitation to technology application in education is no longer the versatility, convenience, cost and potential of the technology but rather the limitation of our imagination in the way they can be applied. Through integration, convergence, miniaturization and intelligence the technologies have become friendly. The question is no longer whether technologies are useful in the teaching and learning environment but which technologies are best suited for a particular purpose. But as is so often the case, *“Universities [which] are often at the leading edge in the use of technologies for research ... have been much slower to develop [and use] technology within the teaching function in their [own]working environment] the very institutions that give birth to these technologies are often the very last to use them”.*<sup>4</sup>

Notwithstanding, there are signs that things are changing and have been over the past ten years. In some ways the success of many distance teaching institutions such as the Open Universities of the UK, India, Korea, Turkey, Venezuela have all in one way or another made significant inroads in the way education systems look at learners, their learning patterns, their learning requirements, assessment strategies and the ownership of credits and awards. More recently, e on-line, virtual and blended universities have also started to make their presence felt in the learning universe. Some of these ventures have become well known for their spectacular failures rather than for their successes. There are reasons for this and perhaps we can take this up during our Q&A.

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<sup>4</sup>Daniel, J [1996] *Mega Universities and Knowledge Media, Technology Strategies for Higher Education*. Kogan Page, London.

My contribution to your conference will look at the following:

- Clarifying the Terminology
- Assigning a Purpose for e- learning
- Contemporary discussion on e- learning
- Assumptions Around Quality
- Practising Quality

## Clarifying the Terminology

There is ample empirical evidence to suggest that any discussion of e-learning quickly becomes fruitless because those participating are not using the same interpretations for the jargon. These difficulties are inevitable both because the field is new and the debate is still progressing and also usage has preceded understanding. For purposes of this presentation I wish to bring to your attention five terms<sup>5</sup> that are currently in vogue. I think it is good to know what they mean as we proceed further:

*Open learning* – policies and practices that permit entry to learning with no or minimum barriers with respect to age, gender, or time constraints and with recognition of prior learning. These policies need not be part of a distance education system but are complementary to it.

*Distance education* – the delivery of learning or training to those who are separated mostly by time and space from those who are teaching or training. The teaching is done with a variety of “mediating processes” used to transmit content, to provide tuition and to conduct assessment or measure outcomes.

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<sup>5</sup><http://www.col.org>

***Flexible learning*** – the provision of learning opportunities that can be accessed at any place and time. Flexible learning relates more to the scheduling of activities than to any particular delivery mode.

***Online learning and e-learning*** – terms that have emerged to describe the application of information and communication technologies (ICTs) to enhance distance education, implement open learning policies, make learning activities more flexible and enable those learning activities to be distributed among many learning venues.

***Virtual education*** – includes aspects of both online and e-learning but goes somewhat further. While it is largely web-centric it does not necessarily limit itself to learners outside a conventional classroom. It uses multimedia and, besides delivering content, also enables a high level of interaction among learners, content, teachers, peers and administration both synchronously and asynchronously.

## **Assigning a Purpose for E – Learning**

While open, distance and/or *e* learning should not be seen as a panacea to resolve all of a nation's educational ills, not including it, as a provision is also not judicious. Governments, educational institutions, business and industrial trainers have all used these provisions for one, two or all of the purposes listed below at one time or another.

- ***Reaching out:*** today's learners, both young and old, will spend their lives in a century that is information rich, knowledge dependent and global in character. They will also be functioning as citizens in a complex world requiring constant and regular updating of their skills and knowledge. They need the skills to

cope with this dynamic period. The growth of online library systems, the easy access to expert knowledge through the Web, the variety of sources of learning and the frequent change of careers and location of residence during a person's productive lifetime will mean having new skills and refreshing old skills. In all these areas the new technologies are an extremely invaluable asset. Returning to school and time table driven classrooms, for even short periods of time is not really an option. Schools have to reach out to citizens.

- ***Reaching Far:*** Schools also have to reach far, to where citizens live, work and play. An earlier generation of educators considered distance a tyranny and founded off campus programmes mostly using print and a nation's postal and other transport systems to reach far. Today for most of us 'distance is dead'.<sup>6</sup> With the demise of distance through telephony, the Net, and the Web providing learning to remote communities is no longer the challenge. With emerging management systems for learning we are in a position to work both synchronously and asynchronously with learners, to provide information, to guide learning, to assess and confer credits. The portable classroom has arrived and it seems to be a lot more exciting learning environment than brick and mortar. It has made learning an active process.
- ***Enriching and Diversifying Curriculum:*** The Web more than any other tool that we know of has the power to make available at the click of a button enormous amount of information from its original source. This information in its multimedia form provides the teacher and learner with information to support

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<sup>6</sup>Cairncross, F. [2005]: *The death of distance: how the communications revolution will change our lives*. Boston, MA : Harvard Business School Press

and enrich a curriculum in a modern classroom. Subscriptions to digital libraries, collaborative projects with peers outside of ones own classroom and access to remote knowledge and expertise makes lessons richer in content and learning exciting in the process. Curriculum can be made relevant to the individuals needs. Instructional techniques have reached a level of maturity that permits the reuse of learning objects to fit a person's learning needs and behaviour. Reusable learning objects also permit instructors to repurpose the use of a particular learning object.

## **Contemporary discussion on e-learning**

E-Learning has expanded beyond the capabilities of older technologists it excels in the following functionalities.

- ***Interactivity and independence:*** Traditions of teaching and our habits of learning have always favoured certain passivity. Professors lectured and students listened and took notes; sometimes they asked questions but seldom did they contribute to the knowledge. That was also true for the older technologies of print, radio and television despite the hype. Active learning and independent learning though much aspired was hard to achieve given the limitation of the technology.

Multimedia materials coupled with other ICTs with their enhanced bandwidth and intelligence can change all of this. Good products make it possible for students to be active. Both teachers and students can control, manipulate and contribute to the information and knowledge generation. On the lowest and least valuable level, a learner simply controls the pace and order of presentation. But more is possible. Using ICTs students

not only make choices about the pace and order of a presentation, but may also chose topics for explorations, take notes, answer questions, explore virtual landscapes, simulate experiments; enter, draw or chart data; create and manipulate images; make their own PowerPoint presentations and communicate with others.

- ***Flexibility***: Learning through multimedia materials provide enormous flexibility of use unlike the older technologies, which required learners to be assembled in a controlled environment at a specific time and location. Radio and television had to be rigidly tied to schedules developed centrally. But the new technologies are available for use at “anytime and anywhere”. The emergence of virtual education is very much a reflection of this versatility of the technologies. Learners can access their education or training at the workplace, home, and library or anywhere where a connection to a telephone and power supply is available.
- ***Connectivity***: Connectivity is probably the most powerful feature of the new ICTs. Since the beginning of the last decade with the emergence of Local Area Networks [LANs], decreasing telecommunication costs, increased bandwidth and the emergence of the World Wide Web, access to education and training through the Internet has been on the increase. With a computer, appropriate software and access to an Internet service, students and teachers have access to every educational resource in the world, which is also connected similarly. This reach goes beyond another person; it also includes data banks of every kind, online libraries, millions of Web pages of educational content and primary locations such as laboratories and research centres where information and knowledge is generated

## **Assumptions around Quality**

Developing quality distance education capabilities at the tertiary level has special relevance to this country. The provision for higher education and the investment in education as a portion of GNP is probably not as high as it should be in this as well as many emerging economies. Against this limited provision is the huge need for putting in place educational systems that need to compensate for the deprivation of the past and the demands of the present and future. The participation in education by the appropriate age group in this country in proportionate terms is probably lower than its immediate neighbours like Malaysia and Singapore.

For the situation to improve and improve it must, the country must see the use of its limited educational resources extend dramatically beyond their present reach without significant increases in their financing. This would mean schools, colleges and universities have to transform their present practices of requiring students to come to them at their call to one where the teaching will have to travel to where the students are. It is in this context of increasing provision that I would wish to consider the question of quality and standards.

This concern for quality is predicated on a number of assumptions that all those who provide public services are expected to acknowledge. These assumptions relate to good governance, gender sensitivity, human rights, transparency access to information and perhaps most important of all, accountability. These are not unreasonable expectations – the community that pays for and nourishes us has the right to demand very clear accounting of the resources used, processes applied and benefits derived by public investment. In the case of education, the quality of the venture stands at the top of these accountabilities. There are at least three sources that need accounting from educators. They are:



- **Society**: By and large, a country's educational system is paid for from the public sector, though this may be fast changing in some of our countries. Regardless whether the education is delivered by private enterprise or public services, there is a responsibility on the part of the Government to ensure that what the educational provider delivers is acceptable and is value for money. There is also an expectation that besides value for money, our educational systems will safeguard and transmit the communities' values and heritage. Societies need assurances that educational systems are not failing in this responsibility.
- **Clients**: This group includes the students and employers of the products of the system. They desire to have the best education and training as possible and to have a certification that the particular levels of skills, knowledge and professional competence has been achieved, while at the same time it commands respect and carries a value.
- **Subjects**: There is an expectation that the knowledge, skills and attitude that comprise each subject must not be distorted, misused or suppressed during teaching. Those who teach must be accountable to their professional colleagues that the integrity of their discipline is upheld.

When we take these assumptions and apply them to distance or on line education, some aspects of quality considerations emerge. These have to do with:

- **Access**: How do we turn into practice our declarations of open, flexible and accessible learning; how user friendly is the organisation; has it attempted to aggressively remove impediments to learning whether these impediments are academic, economic, geographic and technologic?

- **Instruction**: Are the course materials and the structure of the programmes sensitive to learning difficulties; are they enabling and empowering; is there logic to the product; are the processes to develop learning products have the required checks, balances and review necessary to ensure the integrity of the subject; what about the face value of the product – is it packaged properly; elegantly produced and, finally, how efficiently is the product delivered; are product designers sensitive to the learners access to technology, etc?
- **Support**: Are systems in place to support the out of campus learner in terms of her or his learning difficulties; administrative requirements; peer consultation; library and laboratory needs as well as professional requirements.
- **Learner outcomes**: How often have we spoken of attrition rates and how quickly have we been at ascribing deficiencies of the student or her learning environment for failure. Yet, learner outcomes can be a good indicator of quality assurance in a distance education environment. These outcomes are often dictated by practices relating to clarity of learning materials, assessment purposes and systems, academic support. Adult learners express their frustration with the system often with their feet and attrition rates often signal dangers in the academic health of a distance teaching facility.
- **Effectiveness and efficiencies**: The cost-effectiveness and efficiencies of the system are overriding concerns for everybody in distance education. These factors have a major impact on the ways in which courses are designed, developed, delivered, assessed and supported.

## Practising Quality

Nielsen in 1997<sup>7</sup>, when discussing quality issues relating to the training of teachers by distance education, referred to constraints that he described as *internal* and *external*, which impact on the delivery of good quality teacher training by using distance education. Those that were *internal* had to do with the *relevance and quality of the curriculum and learning materials* (seldom do they reflect student centeredness); *effectiveness of the learning processes* (the *presence or absence of student support* as appropriate to the course); the quality of the *assessment systems* (assessment designed for traditional forms of training not being suitable for mature students studying at a distance); and *effectiveness of system management* (management systems that are insensitive to the difficulties of students who live and study away from campus).

Those that were *external* constraints included *student traits* (lack of motivation, inadequate preparation, cultural challenges); *funding* (*under funding*); *organisational support* (to ameliorate *academic isolation*, lack of sensitivity to *environmental difficulties*; lack of *financial assistance*); and *infrastructural* facilities (poor *communication systems*, *socio-organisational support*). As many of you know from your own experiences, these issues are not confined to just teacher training; every single distance education system that I am aware of has gone through more or less very similar kinds of experience. And in order to safeguard the quality of goods and services in such challenged environments, innovative ways have to be explored to deliver curriculum, at times circumventing even

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<sup>7</sup>Nielsen, D [1997]. Evaluative research on the quality of primary teacher training through distance education. *In Distance Education for Primary School Teachers*. Proceedings of a Regional Seminar on Distance Education. The Asian Development Bank, Manila.

institutional bureaucracy. Technology or at least a consideration of technology for such purposes was never far away from these efforts.

In a book that he edited in 1984, Bates, c]]ommented that *“developments in technology are bringing advantages to distance teaching and removing some of the disadvantages previously associated... through promises of lower costs, greater student control, more interaction and feedback as well as wider range of teaching functions and a higher quality of learning”*. The last 15 years has seen some remarkable transformations taking place within the operating environment of global distance education in which the new technologies are playing a crucial role. Improvement in administrative efficiency, better student record management systems, improved course development protocols, a higher level of study centre support and student learning environments have all, in one way or another, benefited from the use of a variety of technologies. But, Technology, whether it is print or multimedia, does not teach; the techniques adopted simply enable the delivery of teaching from narrow to mass catchments while shifting the responsibility of learning away from the teacher to the learner. In the process, it transforms the relationship between teachers and learners. Even while we are entering the era where both multimedia and hypermedia are bringing together [elearning], under one umbrella, the essence of print, audio and video signals, computer-assisted instruction, conference and group learning, at the heart of the teaching and learning transaction will be institutions and teachers in them. The challenge for us will be to create pedagogies of learning within which modes of delivery will contribute to effective learning.

By deliberate design, those institutions that have built a sound reputation for good practise in distance education have been instrumental in making some fundamental changes to long held beliefs about where, when and how teaching and learning should take place.

The critical issue is not where the students are located, but whether they can interact with a teacher or teaching programmes. Bringing about the desired levels of interaction between students, teachers and programmes will mean subscribing to a list of good principles. Many of you know these principles but in the context of this keynote, let me reflect a little:

- **Good practice** *recognises the need for students to be well informed* about the courses that are available to them. Courses of study vary in many aspects even within a programme. Well-designed courses make it transparent before students enrol, details such as aims, objectives, course synopsis, the position of the course in a programme, expected quantum of work, tasks that students are expected to do and criteria that will be used in recognising the completion of the course. Students need to know what they should do in order to make personal preparations before a course begins.
- **Teacher learner contact** is an essential part of a good educational environment. These occasions are not only good for motivating learners but also helpful in the context of overcoming learning problems. Learners are also able to use these occasions to measure their own value systems about their studies and their future.
- **Active learning is healthy**: Students do not learn much from memorising facts and reproducing set answers; they derive greater benefits by being active in their learning. Talking, listening, observing, discussing, writing and relating their own experiences and applying them in the context of their lessons are all part of an active learning process. Good practice in distance teaching does this effectively.

- **Peer support in learning** is highly beneficial. Sharing one's own ideas and responding to the ideas of others to improve thinking and increasing understanding. Learning can improve by it being a team effort rather than a collection of solo performances. Study centre facilities provide valuable opportunities for peer-supported learning.
- **Feedback and encouragement**: Knowing what you know and what you do not know can be a focus of future learning. Regular feedback on their performance helps students learn better and deeper.
- **Paced learning**: Using time effectively is critical for students; what this means to teaching is a clear understanding of appropriate pacing of learning through tools such as assignments, tutorials, broadcast programmes, computer conferencing, etc.
- **Learning pathways** must be mapped to facilitate different styles of learning.

Besides good practice, which must be at the heart of any quality consideration in the practice of distance education, there are three other aspects of distance and open learning that are crucial to its good health. Let me reiterate this once again. They are:

- **Access**: supporters of open and distance learning will claim that their educational mission is to provide access and equality of opportunity for learning, especially to individuals and groups who have been denied this before. As has been argued before, success in providing access is not a sufficient condition for claiming greater opportunity. "Equality of opportunity is a matter of outcomes, not merely resource availability"; in other words, providing access is merely a starting point and equality can

only be achieved if the people provided with such opportunities are helped towards achieving their own goals.

- **Cost considerations:** The cost efficiency and effectiveness of distance education systems are overriding concerns for all of us. These considerations have a major impact on policy issues, and any measurement of the quality of a distance education system will have to take into account costs and benefits.
  
- **Infrastructure:** Delivering education to students off-campus needs infrastructure that are supportive of the teaching and learning environment. This infrastructure should have among other items, the following bare essentials:
  - i. all those who deliver content must have the skills to use teaching methods that are resource-based;
  - ii. such teachers must be trained and provided with the technologies for the performance of their tasks;
  - iii. have provision for students to have access to the emerging communications and information technologies;
  - iv. management configures institutional resources and invests in the production of knowledge products and the pathways to deliver them; and
  - v. management prepares itself to cope with the diversity in the make up of its students, their goals and the context within which they learn.

Finally, even as the practice of distance education moves from the margins of educational practices to centre stage, its full potential to contribute to national development, equalising opportunities for all and drastically changing the nature of teaching and learning still continues to be untapped. In another context, Bill Gates, in his book the *Road Ahead*, reflected that “ . . . we are all beginning another great journey. We aren't sure where this one will lead

*us either, but again I am certain this revolution will touch even more lives and take us all further".* It seems to me that how much further we can go with improving the delivery of high quality distance education is not completely governed by technology or other resources.

At the heart of quality will always be the professionalism, skill, knowledge and commitment of the women and men who are in and work for distance education. Simply relying on present habits or knowledge of instruction and technology will not be enough. We will be required to put in place, organizations and people who can deliver courses at any location chosen by the learner. We need new strategies for course development and certification. And we need arrangements that will link students among themselves; link students and tutors and tutors and tutors; we need a fresh look at our curriculum and we need a curriculum that is dynamic – not one that confines learners to fixed points, but one that is seamless and open. I am told that we have the knowledge, experience and skill to do all these. Crucially, we also have today, the technology to enable us to achieve these ideals. What is needed is the collective will to make it all happen.