

PERSPECTIVES OF QUALITY DISTANCE EDUCATION

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INTRODUCTION

Effectiveness of any system, including education, depends upon both its quantity and quality aspects. Because of globalization and competition among education providers quality has become an important issue these days. Due to quantitative expansion of education at primary, secondary and tertiary levels, the concern for quality is being expressed by all the stakeholders. Quality in education at all the levels is being encouraged in all the countries because of the academic, social, political and economic advantages. If we want to succeed in or get recognition nationally and internationally, we have to improve and sustain the quality of our education system. With quantitative development / expansion, quality parameters have to be strictly adhered to. This, of course, would require improvement in infrastructure, change in curricula, and launch of new academic programmes, use of innovative teaching learning methods, utilisation of ICTs potential and development of favourable attitude towards quality education.

QUALITY DISTANCE EDUCATION: THE CONCEPT

Assurance and sustenance of quality in education is a complex phenomenon. Different educationists have perceived quality education in different ways. Judgment about quality differs according to whose views are sought (Robinson, 1992). Indian complex socio-economic system as much as access impacts quality and access, so does quality impacts access (Premji 2003). Thus, quality of education means quality of teachers, quality of learners, quality of courses, quality of planning and management, quality of infrastructure / resources and quality of teaching and evaluation methods. In terms of the system approach the quality of input and process will shape the quality of outputs that the graduates of the education system. Therefore, the quality of distance education is not a one-time affair. It is a continuous process involving sustained efforts. Open Distance Learning (ODL) in the present form is an emerging mode of imparting knowledge, skills and attitudes to learners in a non-contiguous situation. Over the past few years, there has been increasing interest in quality in ODL. The goal of ODL is to empower the learners by facilitating their learning in a high quality and learner-centered environment. Openness in education is a feature that has attracted wider support from and interest among people in many countries in recent times. Openness, a broad and relative term, is counted in terms of flexibility in the educational system: relaxed admission requirements (most obviously liberal entry qualifications), age, pace of learning, course combinations, selection of objectives, mode of instruction, evaluation techniques and so on. Education at one's home or work place is an important feature of open distance learning (ODL). Advancements in pedagogy / instructional design and communication technologies have added to the effectiveness and efficiency of the openness in the ODL system. Information and communication technologies (ICTs) have provided various options of imparting education which is an essential component of any system to succeed. As a result, distance educators today are equipped with a variety of means and methods of education and training to make the education resources accessible to all those who want to have it as per their needs and convenience. Distance education institutions in any country are established with the main objective to democratize education as a resource and provide every citizen, irrespective of sex, caste and creed, easy and affordable access to quality education. It is desirable for the distance education institute to proceed by maintaining high quality standard. Quality dimension of ODL system is more complex as it requires the integration of a large number of activities, processes and operations. Various academic and administrative units are involved in the teaching, learning and evaluation. ODL system, therefore, has to commit itself in maintaining high quality in pedagogy, content as well as learner support services.

FEATURES OF QUALITY ODL SYSTEM

There are three important features of any successful education system. They are access, quality and costs. All these features are interlinked and they influence each other. For instance, if education as a resource is costly i.e. beyond the capacity of the majority learners, the educational system would be inaccessible to them. Thus lesser the cost, greater the accessibility to education. Quality and access are two sides of the same coin which go together. Providing affordable access to the education resource to all should not dilute the quality of operations and services rendered by the educational system. In spite of the fact that we do not follow a particular model of quality distance education, which can be evaluated systematically, following are some important considerations to assure and sustain the quality of distance education. These considerations are based on the experience of distance educators and learners around the world.

Knowledge of Level of Excellence

The learners may not be aware of the level of their performance or the standards set by the course designers. They lack the spirit of competition. Because of no or poor peer interaction they do not know the comparative level of their progress. Once they know this they feel more confidence and satisfied. Thus besides knowledge of the standards set by the course designers, they aspire to know the level of their performance vis-à-vis other learners. This information will help them strive for excellence in their performance. This highlights the role of distance teachers who, for example, through their constructive feedback on the assignment responses submitted by the learners, can make them aware of the standards they have attained and the standards they were or are expected to acquire. This is a reason why continuous and comprehensive assessment of the learners' progress is important in the ODL system. Besides assessing their progress, evaluation of their assignments can assist them to improve and maintain the quality of teaching-learning. Formative evaluation at each stage of the ODL system functions as a quality control measure in producing learning materials and evaluating the change in knowledge, attitudes and skills of the learners as per the pre-fixed objectives. Continuous evaluation judges whether and to what extent the objectives of social transformation have been achieved.

Social Development

The ODL system emerged as an off shoot of the socio-educational pressure of the people. The educators, who believe in ODL as a potential tool for social transformation, claim that ODL will create a new society, i.e. a well-informed and productive society. If learning is stretched over a lifetime, there is no justification for forcing people to attend a full time conventional school. ODL can be an answer, which demands necessary changes in the instructional methods, curriculum and assessment techniques. In other words, ODL implies innovations in teaching-learning strategies to produce socially desired citizenry. And if it succeeds in producing socially desired citizenry, it can claim as a quality system of education. The ODL should be linked with specific objectives of society to be achieved. To see whether ODL really is able to change the structure of society, whether it is based on the educational and training needs of society, there should be provision for continuous evaluation of its social impact. The ODL system should empower people to manage change in the social system.

Feeling of Success

The features of ODL, such as relaxed entry qualifications, individualized learning at one's own pace; place and flexible assessment mechanism relieve the learner from the feeling of failure. Well designed ODL thus can provide quality education with minimum or no risk of failure and achieve excellence in learning. Motivation increases by success and success, in turn, reinforces motivation. There is a need to work out appropriate teaching-learning strategies, which give the learners the feeling of success i.e. what they are going to study is useful, simple and manageable. To sustain motivation, the goal should be real, achievable within the capacity of the learners. Quality distance education is expected to fulfill this requirement of lifelong learning.

Need-based Curriculum

Need-based curriculum has a strong implication for quality learning. The adults learn best when they learn through activity at their own pace with materials that are need-based and seem relevant to their life and also use their own experience. To ensure quality learning, the learners should be provided an encouraging environment where they construct new knowledge based on their experience and the context. They should be trained to transfer, learning from one situation to another and solve problems in such a case, the learners learn to utilise their self-motivational strategies. They identify their own way of motivation for learning. Self-motivational strategies depend on various factors, such as experience, maturity, need-achievement, usefulness of education, through specially designed self-learning materials; the learners are bound to acquire the desired level / standards of performance. And it will ensure that the knowledge gained or the skill acquired is practised in actual life situations. Curriculum is designed in such a way that it increases learners' control over the time, place and pace of learning. The learning material should provide learners with opportunities to access content for acquiring knowledge and skills.

Learning: A Personal / Individual Phenomenon

The ODL system advocates for individualised learning which is based more on psychological theories. In this system, learning occurs through interaction between the individual learners and the text / content to be learnt, rather than through social phenomenon in which interpersonal human dialogues transform understanding (however the social experience held by the learner helps construct meaning). Knowledge, skills or attitudes are acquired by reading, listening or watching relevant information and by working on self-assessment questions / activities, presented in the learning materials – printed text, audio / video component, teleconferences, etc. The learner's ability to acquire knowledge and skills depends on certain psychological factors, such as pre-requisites the learners already possesses, motivation to attend to the learning tasks, individualised pace of learning, study or learning styles / habits, etc. Thus learning at a distance is more of an individual phenomenon, a private activity. What can be inferred from this explanation is that the quality of education depends on the quality of learning material and instructional design/ approach employed by the course designers and writers to arouse and sustain motivation in learners. If the teaching strategies are geared to suit their needs and interest, they often learn better. This feature of the open learning materials makes learning more attractive by exploiting psychological characteristics of the learners i.e. individualising instruction, providing clear explanation, comprehensive and continuous testing mechanism, diagnosing learning difficulties, providing constructive feedback etc. But the question is whether the explanations, assessment techniques, diagnosis and feedback strategies used for learning at a distance are superior to those provided by the teachers or peer group in a face-to-face situation? We do not have any ready-made answer to this question. The answer would reflect on the overall quality of distance education materials and hence the system.

Quality Management

Another important aspect of ODL system is to utilise quality system management which ensures continuous improvement of the process, product / productivity and learner satisfaction. Quality control system suggests appropriate tools and models for effective distance teaching and helps effectively design and implement the learning materials. Quality management helps identify system flaws through systematic evaluation, both formative and summative. Formative evaluation which encompasses a series of activities such as learners' educational needs, better instructional design, increased use of supportive technologies, developmental testing and feedback, can ensure the quality of ODL system. Summative evaluation in turn will determine the overall effectiveness of the system. Thus both the formative and summative evaluation will supplement and / or complement each other to improve both the process and the outcomes of teaching and learning. Quality management is an area which needs serious thinking to make ODL a success. It has become more important because of the inherent diversities in learners in terms of their experience, social and family commitments, self-concept, pre-requisites, motivation, needs, interest, etc.

PRINCIPLES OF QUALITY ODL

Chickering and Gamson (1987) discussed seven principles for good practice in open distance learning. They are:

- *Encouraging and maximizing contact between learners and teachers: Communication between the learners and the teachers is important for enhancing motivation and involvement and hence facilitate learning;
- *Developing relationship and promotes collaboration among learners: Peers can be invaluable in the learning process. Sharing ideas, resources, problems, etc. promotes higher level learning among them. Quality distance education should promote collaborative learning;
- *Incorporating active learning: Active learning involves application and problem solving, research and simulation;
- *Giving rich and rapid feedback to learners: The learners therefore should be able to assess their own learning as well as get feedback from others about their strengths and weaknesses;
- *Giving stress on time-on-task: Distance learning environment should be rich with reading, activity and interaction. The learning points should be easily accessible to the learners;
- *Setting high standards for learners' performance: Distance learning materials should be challenging in providing opportunities for interaction, collaboration and activity. Objectives should be clearly set for the learners to achieve;
- *Paying respect individual differences and allowing opportunities for learning that acknowledge those differences: Learner characteristics, learning styles and learner challenges in ODL are considered while designing learning materials so that the learners feel self-motivated, focused and assertive, willing to assume responsibility for their own learning. Distance learning should be organized in such a way that based on their experience and learning context / environment learners find their own ways for approaching problems, completing tasks and using learning materials.

BROAD CRITERIA OF QUALITY ODL

McAnanay (1975) developed five broad criteria of quality education which provides us useful insight for improvement of the ODL system. These are: Efforts, Performance, Adequacy, Efficiency and Process. Efforts refer to the initiatives taken by the institution. These initiatives are associated with growth in terms of courses offered, learners enrolled, pass out rates, learner support services provided, evaluation mechanism adopted etc. The growth in these criterions would reflect on the performance of the institution. In other words the initiatives show the efforts made by the institution to initiate more activities to cater to the needs of learners. Performance refers to learning gains of the learners in terms of knowledge, skills and value system, success completion, employability of the graduates, learner-centric course materials, etc. Higher the performance would mean higher the quality of the system. Adequacy refers to the capacity of the institution to meet the educational and social needs of the learners, and to support their upward mobility. The institution should collect feedback through various means and on all the aspects of ODL system to make the processes and operations more adequate / relevant to the society in general and to the learners in particular. The learning materials should help learners learn in the way they find most natural and effective. Efficiency refers to the costs of the open distance learning. The efficiency of the ODL system is assessed in terms of cost per learner and cost per successful learner. It also includes the efforts made by the institution to increase the efficiency of the system. Efficiency implies the optimum use of physical and human resources to achieve course objectives. Process refers to the various processes and operations involved in ODL system to achieve learning objectives. It also refers to the institution's commitment (which can be observed) to excel in the teaching learning process through quality assurance mechanism. As stated earlier, the quality of the ODL system depends on the united efficiency of all its sub-systems, such as course development, learner support, management

(decision making) of learning process, delivery mechanism, evaluation and ICT sub-systems. The effectiveness of every element of the process / operation is assessed during its formative stages so that we are able to impart quality education to the learners. In other words, an effective feedback mechanism to systematically collect, analyse and feed information back to the system can ensure quality education. The process should reflect the expertise and commitment of the faculty and other functionaries in achieving excellence. The efficient process will result desired learning outputs. The goal of quality control should be to identify and retain effective processes and replace ineffective ones. It would focus on correcting the instructional processes that are not successful for the learners to succeed at each stage of distance education system.

There are five main parameters of quality education: effectiveness, efficiency, equality, relevance and sustainability. Effective education helps learners achieve goals related to their personal / professional, national and humankind growth. It depends on various indicators such as, curricular materials as inputs, characteristics of learners, socio-cultural context, system management, attainment of objectives as outputs, etc. All the indicators are analysed and planned keeping the educational needs of the learners in mind. Efficient education means making the most of inputs (such as costs, time, physical and human resources etc.) to accomplish course objectives. The learners should be able to achieve their learning objectives with efficient use of resources. Therefore the objective of quality education are set in the most resource efficient way. Quality education brings equality among learners, protects their rights, liberates / empowers them with needed competencies and skills and supports their development. Equality in education promotes social cohesion, social diversity, peace, human security, etc. Equality is identified with disadvantages / disparities in terms of gender, access to education resources, poverty, academic achievement, etc. Quality education, therefore, meets educational needs of the learners of disadvantaged group / section of society. To be relevant for the present and / or for the future of the country, quality education considers national priorities, cultural values and philosophies of society. It is based on educational and training needs of the learners / society. Relevant education transforms learners into productive and empowered citizens of the country. The last parameter is sustainability. Quality education has lasting effects and continues into the future. Quality education is aimed at empowering learners of all ages and levels to assume responsibility for creating and enjoying a sustainable future. Quality education is not confined to a particular age. It promotes lifelong education. It 'builds human capacity not only for employability, but also for broader lifelong learning as well as for adaptive and copying livelihood strategies in the fast moving and complicated world' (Lawrence & Tate 1997). The discussion reveals that the outcomes of any education process are not only criteria of quality of education; quality education is harmonious interplay of all the parameters, discussed above, within classroom, institution and / or society as a whole. As far as classical approach to quality assurance in ODL system is concerned there are three main criteria for quality assurance (Koul 2005). They are: the process of course preparation together with the quality of course materials; teaching-learning transaction which incorporates feedback and interactivity in the form of counseling, tutorials, assignments etc., and usability of ODL for particular subjects / objectives. These criteria form the backbone of quality assurance in ODL system.

While deliberating on the factors that contribute to quality assurance practices, Koul (2005) opined that quality assurance concerns, protocols and practices appear to be context specific. The quality factors, however, are applicable across countries and they are accepted by ODL systems universally. He suggested three broad dimensions that can provide basis for analysis of quality assurance in ODL systems. These dimensions are: Core dimension, Systemic dimension, Resource dimension. Core dimension pertains to learner-centricity (pointing to the importance of learning, not teaching, as a quality measure) and capacity building (training academic and administrators to manage shift. For both these factors research is a pre-requisite. These factors are instructional design, learning materials, transaction of content, evaluation, learner support services.' There should be adequate quality provisions in the development and delivery of ODL materials. The instructional design and learning materials should be of high standard from all respects. The learning materials are designed and structured to facilitate learners'

achievement of clearly stated learning outcomes. Complex, open-ended and realistic problems provide framework for ODL materials. In other words the learning materials are structured around activities which are designed to develop knowledge, skills and attitudes. Systemic dimension pertains to those factors which constitute the ODL system at the institutional as well as national levels. This dimension pertains to the initiation and introduction of quality assurance mechanisms, internal as well as external, and symbiotic relationship between the two and the management of both the mechanisms and their relationship. Factors such as institutional leadership and management, institutional vision and mission, objectives, quality assurance policies and procedures, selection and training of faculty / staff, delegation of powers and responsibilities, monitoring system, innovations, etc. All these factors promote quality culture in the ODL system. The management should ensure day-to-day work activities as per the quality standard / norms set nationally as well as institutional policy. There should be a culture that encourages quality improvement / maintenance. This dimension demands to set up a quality assurance cell / unit in every institution so that all the elements / sub-systems of the ODL are adequately monitored and maintained as per the norms. Resource dimension pertains to availability of and accessibility to both human and physical resources which include ICTs, technical and academic expertise, learning resources and physical infrastructure. ICTs have opened immense possibility for quality enhancement / improvement. They enhance both the quality of learning and access to learning resources all over the country. However the success of ICTs depends on exploiting the potentials of various media. Hence, it is necessary to develop ICT-enabled pedagogic models and networking locally, nationally and internationally. The faculty and other functionaries should undergo recurrent training in optimum utilisation of all available resources and in keeping abreast the developments of ODL system. To reassure quality the effectiveness of the ODL system should be assessed at each stage on a continuous basis. Besides assessing the performance (through continuous evaluation and term-end exams) of learners, the effectiveness of learning materials, learning support services, learners' satisfaction, etc. should be assessed. Evaluating learning depends on defining specific and observable learning objectives and then assessing learners by reference to the learning outcomes which should be appropriate to the level of the course and the level of the learners. The delivery system may also influence assessment and should be carefully considered. Evaluation of the course content and delivery involves getting reliable and direct feedback from the learners on what worked well for them and what needs improvement. Such feedback, when considered, can be invaluable for improving the quality of ODL system. Further, the educational effectiveness of ODL system (including assessment of learning outcomes, retention and satisfaction of learners) is evaluated to ensure comparability to conventional education system. Thus, high quality ODL systems ensure the integrity of learners' work and the credibility of certificate they get after successful completion of their courses / programme of study.

TOWARDS MAINTAINING QUALITY: PUTTING ALL TOGETHER

The discussion in this paper has unambiguously shown that quality in education is not one time affair. It demands sustained / consistent efforts and firm commitment by all the stakeholders. The institutions are required to identify their goal and mission, and define the quality and standard of performance against their objectives. They need to provide requisite evidence to assess their success and to satisfy their target groups. There are some factors which can help ODL institutions in creating a culture for quality education and sustaining it for long. According to Kirkpatrick (2005) a framework for managing ODL quality should address: (a) General philosophy: Policy and mission statement, resources, culture of the institute, attitudes and commitment of staff; (b) Products: Learning materials, courses, media, outputs, progression and retention rate of learners, assessment outcomes (pass out rates, standard of performance etc.); (c) Services: Registration and advisory services, counseling, tutoring, feedback and guidance on learning, support for learner progress, management of regional / study centers and resources, responsiveness to queries / doubts / issues; and (d) Support process: Delivery systems, record keeping and electronic back up, warehousing and stock control, quality assurance procedures. The following are some important factors for ensuring the quality of ODL system:

Policy

The Central / State Governments and the institutions have to frame distance education policies which explicitly display their commitment for quality. The enabling policies should set the philosophy, vision and systematic procedure for designing, developing and implementing ODL materials. These policies should encourage academic fraternity to practice quality parameters in designing and developing learning materials, delivery of the courses, assessing performance of the learners and the effectiveness of various processes of the ODL systems. Thereby the institution should review its policies based on empirical evidence / feedback collected periodically through formative and summative evaluation. The policies should be pro-learners so that they are empowered with needed knowledge, skills and attitudes. The institution policy should reflect the culture of quality of ODL in its calendar of activities. The institutional climate should motivate to own the responsibility quality assurance. Policy and strategic plans derived from the mission statement are appropriate for national and institutional context and responsive to changing contexts. Policy statements should be drafted on all the processes of ODL, such as programme / course design and development, learner support services, assessment, information and communication technology, management, quality assurance, programme revision, etc. Policy statements should include the methods to implement or achieve them. Monitoring procedures should ensure that the policies are implemented, evaluated and amended should be in place.

Leadership

At the institutional level, leadership is the most significant engine for change, development and quality assurance (Koul, 2005). Under the dynamic leadership the distance educators would perform optimally. Institutional commitment to quality education should be reflected in all the actions / decisions by the leadership so that an encouraging quality culture is developed. The leadership should be innovative and pro-change so that the ODL system can grow to meet the emerging needs of 21st century. There should not be any compromise on quality at the cost of quantity. The leadership has to create a culture of quality in ODL. Thus the institution has to make provision for wide-ranging internal quality system focusing on students' learning. The internal quality mechanism should induce everybody to own responsibility of quality education.

Innovation

The ODL system is an emerging mode of education and training. All the stakeholders of the ODL should be innovative in framing policies, managing the system, designing and developing courses, assessing learners' performance and institution's effectiveness, applying a variety of methods and media etc. Innovations in all the processes of designing, implementing and evaluating can ensure quality education. Innovations should be based on research: systematic and discipline-based. Innovative practices may not succeed unless they are owned by the faculty and other functionaries who, as stated earlier, should be oriented and re-oriented in paradigm changes in the ODL system. The faculty should be encouraged to undertake experimentations to assess the feasibility of changes. Best practices should be replicated by the institution.

ICT Application

Use of ICT can empower both the teacher to effectively transact content and the learner to learn efficiently. Besides, the application of ICT can increase access of learners to quality education resources. If properly designed, developed and implemented, ICT can bring a qualitative change in teaching and learning at a distance. It has been observed that utilisation of ICT either by the learner or the teacher / institution for delivery or for learning is not satisfactory. However, a number of communication devices are available to the learners and the teachers / institutions these days. An exclusive and dedicated satellite: EduSat, launched in 2004 has tremendous potential to impart quality education and training. The potential of EduSat is available to all the educational institutions in the country. The expertise of the

best experts can be made available to all the learners across the country. ICT can create facilitative learning environment to arise and sustain motivation of the learners.

Learner Support Services

Besides high quality of learning materials, the ODL institution has to facilitate learners' study by providing needed supports in terms of counseling (pre- and during course), resolving queries related to their study (personal, administrative, and academic) extending library facility, making ICTs, input accessible, providing timely feedback etc. There should be provision to take care of their queries / doubts. The experience all over the world reveals that many of the learners may drop out due to inadequate learning support and indifferent behaviour of functionaries at ODL institutions. The learners should have confidence that there is somebody in the institution to attend to their queries promptly who is aware of and cater to their difficulties faced by them during the course of their study. The support to be provided to the learner should be clearly documented so that all those associated with ODL can implement those measures / services. The effectiveness of learner support services should be monitored and assessed on a continuous basis. The schedule of each activity, such as student registration, delivery of materials, movement of assignment questions and responses, notification of examinations along with their integrity, performance of learners, learner progression and retention, etc. should be clearly spelt out / documented. All the learning support services should be regularly monitored and reviewed against specified performance indicators. The institution should ensure that feedbacks collected through various monitoring mechanisms are fed back into the ODL system. The counselors should be selected depending on the need of the course / programme and trained in their role of facilitating learning of learners. They should be accessible to learners for individual guidance at mutually agreed upon time. Counselors' performance should be monitored regularly. At the same time, feedback should be collected from counselors about the various aspects of the ODL system, including the quality of courses and their implementation.

Human Resource Preparation

ODL system is multitasked mode of education and training. A team of experts are involved in various activities, such as course design, course development, editing, ICT production, learner support services, evaluation, monitoring, management of learning system, etc. The institution engages various academic, technical and administrative staff to handle specialized tasks of the ODL system. All the staff should be trained in these tasks. Staff development is fundamental to quality education. The staff joining ODL from the conventional education system may not appreciate the needs of ODL system. They should be trained to work in a team mode. They should be assigned specific tasks they have been trained in. Training workshops can be organised at various levels: orientation, skill development and advanced training. Continuing professional development of teachers and other functionaries is a key element in ensuring quality in the ODL system. Selection, training retention and continuing professional development are pre-requisite of quality teachers and hence quality education.

Management

More participatory and transparent management approach could be formulated in which all the stakeholders can play an active part in the decision making process. The role and functions of all the bodies within the institute should be clearly documented and made accessible to all. And there should be a provision in the management for effective communication (forward and backward as well) with all the staff. The management system should be so devised / framed that it caters to the needs of the learners. In other words, the bottom-up model, with learners in the focus, could be used to ensure learners' satisfaction. The management should make certain that the day-to-day work of the institute meet the quality standards. Use of ICTs can make the management process more effective in managing all the processes of ODL.

REFERENCES

Chickering, A.W. and Gamson, Z. (1987) *Seven Principles of Good Practice in Undergraduate Education*. American Association of Higher Education Bulletin, March.

Kirkpatrick, D. (2005) *Quality Assurance in Open and Distance Learning*. Commonwealth of Learning, Vancouver. www.col.org/colweb/webdav/site/myjahiasite/shared/docs/PS-QA

Koul, B.N. (2005) *Perspectives on Distance Education: Towards a Culture of Quality*. Commonwealth of Learning, Vancouver.

Lawrence, J. & Tate S. (1997) *Basic Education for Sustainable Livelihoods: The Right Question?* UNDP, New York.

McAnanay, E.G. (1975) Radio schools in non-formal education: an evaluation perspective. In La Belle, T. J. (Ed.) *Educational Alternatives in Latin America: Social Change and Social Stratification*. UCLA Latin America Centre Publications, Los Angeles.

Premji, A. (2003) *Wipro Applying Thought in Schools*. Jawaharlal Nehru Memorial Lecture. <http://www.wiproapplyingthoughtschools.com/?q=node/33>

Robinson, B. (1992) *Applying Quality Standards in Open and Distance Learning*. Paper presented at Quality Standards & Research in European Distance Education Conference, University of Umea, Sweden, March 5-6.