

TOWARDS KNOWLEDGE BASED ECONOMIES - *the contribution of open distance learning strategies in addressing equity and inclusiveness issues in small states like Mauritius.*

ABSTRACT

Equity and inclusion in education are increasingly being acknowledged as critical issues for national development. This is reflected in conventions and commitments taken by various governments and impacts on the achievement of the UN Millennium Development Goals as well as the UNESCO Education for All Goal.

This paper attempts to define equity and inclusion in education and discusses its importance for national development. The purpose of education and inclusion in education systems is to advance the cause of social justice and equity. Achieving equity and inclusion in education is a human rights issue and is a real challenge for many countries. What are the barriers or causes of inequity and exclusion? These are quite complex, the barriers being multidimensional and there is no “one size fits all” solution.

Addressing the issue of equity and inclusion in education has political, social, economic, technological and cultural implications. How do we achieve this goal for every child? It is both an opportunity and a duty.

One of the proposed strategies in this paper will be to adopt and integrate open and distance learning (ODL) in the mainstream of the education and training system. Some of the challenges facing small states are also highlighted. Properly designed and managed ODL can increase access and contribute towards achieving equity and inclusion in education – when combined with the relevant enabling environment.

THE KNOWLEDGE ECONOMY

The knowledge economy can be regarded as one that relies more on the

- use of ideas and knowledge rather than physical abilities,
- application of technology rather than the transformation of raw materials or the exploitation of cheap labour.

Knowledge is regarded as the core national value through which people achieve

- (i) greater choice and opportunity;
- (ii) deeper social integration.

No country can remain competitive without applying knowledge especially when economic growth is increasingly driven by knowledge. This is even more important for small states. Rapid advances in the science and technology provide potential for small states to accelerate and strengthen their economic and social development. The twenty-first century has been called the “*Century of Grey Matter*”, meaning the intellect, which constitutes a new source of wealth for our planet.

There is a clear relationship between knowledge/skills development and economic growth. The most important key to national development is education/training driven by principles of equity and inclusiveness. This must start with universal pre-primary and primary education for all children accompanied by an open, dynamic system of secondary and tertiary education that includes adult continuing education in an environment that supports and sustains lifelong learning.

In the 21st century, workers need to be lifelong learners, adapting continuously to changed opportunities and labour market demands of the knowledge society. Lifelong learning (LLL) is not a luxury in view of such incessant economic changes. There is already talk of the “*liquid society*” (Bauman 2000), quoted by **Suzy Halimi** in UNESCO/COL (2005) (“*Perspectives in Distance Education - Lifelong Learning & Distance Higher Education*”). This means a society in constant flux —Education systems will have to evolve in that direction.

Thus education and training are central to strengthening the human capital base which supports the pillars related to skill building, national innovation systems and national development. This implies

- improving access and equity to learning opportunities;
- inclusiveness – a strong foundation to empower all individuals to engage in LLL;
- quality and relevance of learning opportunities.

Equity and inclusiveness in education are increasingly being acknowledged as critical issues for national development. This is reflected in the various conventions and commitments taken by various governments and impacts on the achievements of UN Millennium Development Goals (MDGs) as well as the UNESCO Education for All (EFA) goal.

EQUITY

“Educational equity refers to an educational *and learning* environment in which individuals can consider options and make choices *throughout their lives* based on their abilities and talents.

The achievement of educational equity enables everyone to develop skills needed to be productive and empowers individuals. It opens economic and social opportunities regardless of gender, ethnicity, or social status. Educational equity includes equities in

- access,
- participation,
- achievement and educational outcomes and creation of fair learning environment for all.

Thus the definition of equity is broad and emphasizes both equity in opportunities and equity in educational outcomes. Equity in education is thus not only a question of opportunities provided. It is also about the actual results of the various educational choices and performances of different groups of learners in the educational/training system. It implies focusing on socio-economic outcomes including maintaining employability and the capacity to participate in the knowledge economy.

Learners are different along several dimensions which have an impact on their need for learning and follow-up in the educational system. Individual learners have differences in motivation, interests, and intelligence. Differences in the economic, cultural and social resources in their environment have an impact on the equity aspect. The school culture and resources allocated to the different parts of the educational system have an impact on equity in education.

Thus, inequity in education may be caused by

- structural and economic differences within the educational system;
- differences between learners.

INCLUSIVENESS

Our starting point could be the Education For All Goal.

"Basic education for all requires assuring access, permanence, quality learning, and full participation and integration of all children and adolescents, particularly for members of indigenous groups, those with disabilities, those that are homeless, those that are workers, those living with HIV/AIDS, and others." (EFA, 2000)

Inclusion in education means

- educating all children with disabilities in regular classrooms regardless of the nature of their disabling condition(s).
- providing necessary services within the regular schools.
- teaching all children to understand and accept human differences.
- providing them enhanced opportunities to learn from each other's contributions.
- supporting regular teachers and administrators (e.g., by providing time, training, teamwork, resources and strategies).
- providing an appropriate individualized educational programme.

Inclusion in education involves

- increasing the participation of students;
- restructuring the policies and practices in national system so that they respond to the diversity of students;
- reducing barriers to learning and participation for all students;
- viewing the difference between students as resources to support learning, rather than as problems to be overcome.

The purpose of education and for inclusion in the education systems is to advance the cause of social justice and equity. Achieving inclusion in education is a human right issue and is a challenge for many countries. The causes of inequity and exclusion may be multidimensional and it is difficult to have a “one size fits all” solution.

For inclusion to work, educational practices must be learner-centered. This means that teachers must discover where each of their students is academically, socially, and culturally to determine how best to facilitate learning. Learner-centered teachers view their role more as being facilitators of learning rather than simply transmitters of knowledge.

Therefore, skills in curriculum-based assessment, team teaching, mastery learning, assessing learning styles (and modifying instruction to adapt to students' learning styles), other individualized and adaptive learning approaches, cooperative learning strategies, facilitating peer tutoring and "peer buddies," or social skills training are important for teachers to develop and use in inclusive classrooms. Soffer (1994), quoted by Richard Tompkins and Pat Deloney, Research Associates, Services for School Improvement, SEDL, (Vol 4 Number 3, 1995) emphasizes that these are not just good special education practices, but are good practices for all teachers.

The process of inclusion can be supported by

- a change in attitudes;
- putting into practice a stated commitment to the principles of inclusive education;
- adapting initial and in-service training of teachers and supporting head-teachers;
- understanding that the greatest barriers to inclusion are caused by society and the system.

Education and training systems are at a turning point. The economic importance of knowledge and innovation is increasing, along with reliance on technology and demand for both traditional skills and new competencies. People therefore need access to learning on an on-going basis. This in turn requires a stronger alignment of institutions and policies to create high performance, learner-centred and learner-driven systems.

Developing small states face a particularly acute challenge in this area. For example, they need to

- expand coverage to achieve universal access to basic education,
- increase access to secondary and tertiary provisions;
- improve the linkages between formal and non-formal education systems and the labour market;
- improve the quality of learning;
- expand learning opportunities beyond initial formal schooling.

while paying ensuring equity and inclusiveness.

THE CURRENT STATUS IN MAURITIUS – Its education system

Mauritius has a 6+5+2 education structure that rests on a two year pre-primary foundation. It comprises six years of compulsory primary schooling from Standard I to Standard VI leading to the Certificate of Primary Education (CPE). This is followed by five years of compulsory secondary education from Form I to Form V leading to the Cambridge School Certificate (SC). An additional two years of secondary schooling ends with the Cambridge Higher School Certificate (HSC).

Education is free at the primary and secondary levels. At the tertiary level, all full-time undergraduate programmes are free at the University of Mauritius (UoM). However part-time programmes are fee-paying, although they are subsidized by government. Programmes at the University of Technology Mauritius (UTM) which is publicly funded are also fee-paying but subsidized.

The distribution of schools, enrolment and personnel at pre-primary, primary and secondary levels in March 2005 is given in Table 1.

Table 1 - Distribution of Schools, Enrolment and Personnel in March 2005

		Island of Mauritius			Island of Rodrigues		
School		Pre-primary	Primary	Secondary	Pre-primary	Primary	Secondary
No. of Schools		1,039	278	182	33	13	6
Enrolment	Boys	18,228	60,335	51,363	706	2,394	1,625
	Girls	17,736	58,402	55,442	686	2,431	1,857
	Total	35,964	118,737	106,805	1,392	4,825	3,482
Teaching Staff		2,426	6,425	6,608	75	251	177
Non-Teaching Staff		856	1,424	-	5	153	-
Teacher:Pupil ratio		1:15	1:29	1:16	1:19	1:23	1:20

[Source: Central Statistics Office (2005), Economic and Social Indicators, Number 523]

Pre-vocational education is offered to those who have failed the CPE examination. In March 2005, 147 schools were offering pre-vocational education: 142 on the island of Mauritius and five on Rodrigues. Enrolment in the schools offering pre-vocational education was 9,845 comprising 6,121 boys and 3,724 girls. The pre-vocational education teaching staff numbered 648 (239 men and 409 women).

Access to quality services in the pre-primary education sector is vital for the developing of a strong foundation for intellectual, socio-emotional and psychomotor development. This is critical for strengthening the foundations of life long learning and towards the knowledge society. The Gross Enrolment Rate for the pre-primary sector in Mauritius stood at 94% in 2005. The report (August 2006) by ADEA, entitled “Initiating and Conducting an Experimental Peer Review Exercise in Education in Africa”) notes that in Mauritius

*“A critical concern for this sector is whether all children are receiving equal access to **quality** pre-school education. There is a perception that an unequal provision of facilities and teachers for pre-schools dependent on the socio-economic class that supports the school exists.”*

The situation is similar at the primary level. Mauritius has made significant progress towards providing universal access to primary education through a system that is free and non-discriminatory.

The paradox is that although all children can access education, a significant proportion of them cannot successfully remain in the system. **Primary education fails 30 to 40% of all children every year.** The average failure rate on the CPE examinations over the last five years was 35.6%. Access to 'mainstream' secondary education is still 'bottlenecked'.

A QUICK EVALUATION OF DROP OUT, TRANSITION AND ACHIEVEMENT AT PRIMARY LEVEL & SECONDARY LEVEL

Compared to other countries, the drop out rate in all grades/standards is 1.7%. This is relatively low as indicated by table 2.

Table 2: % Dropouts [2000]

Country	% Dropouts, all grades
Botswana	15.10
Madagascar	66.40
Mauritius	1.70
Senegal	40.90
South Africa	42.60
Zambia	34.80
World	13.60

Source: Report (August 2006) by ADEA, entitled "Initiating and Conducting an Experimental Peer Review Exercise in Education in Africa")

Table 3 shows the number of school candidates who took the CPE examinations and the results.

Table 3: Number of candidates examined at CPE and the results.

Year	Number examined	Percentage pass
1999	26 388	64.3
2000	28 058	66.4
2001	29 120	65.3
2002	27 842	64.9
2003	27 510	62.6
2004	27 332	63.0
2005	27 117	64.9
2006	27771	65.0

Source: Education Card 2003/2004/2005, Ministry of Education and Human Resources

The average pass rate over the years 1999 – 2005 is 64.5%. Over the years, the fluctuations in the percentage of candidates who passed the CPE have been very small. The low pass rate at the CPE, results in a low transition rate from primary to secondary education. It is a strong indicator of the internal efficiency of the sector. Table 4 shows how the transition rate for Mauritius compares with other countries. The transition rate is only 63.2%.

Table 4: Transition rate for Mauritius compared to other countries.

Country	Transition rate to secondary education
Botswana	96.1
Madagascar	55.0
Mauritius	63.2
Senegal	39.2
Seychelles	98.8
South Africa	91.9
Uganda	40.6
Zambia	49.8
Thailand	91.7
World	90.8

Source: Report (August 2006) by ADEA, entitled “Initiating and Conducting an Experimental Peer Review Exercise in Education in Africa”)

In fact the Southern African Consortium Measuring Educational Quality (SACMEQ) conducted a study in 2003. It points out that

- 26 % of pupils in standard I did not enter Form I;
- 60% of the same cohort did not reach Form V;
- 73% did not reach Form VI

According to the Education Card 2005 statistics published by the Ministry of Education and Human Resources, the Gross Enrolment Rate at secondary level (academic and pre-vocational) stood at 73 % in 2005.

A high level of participation in the education process is important but this is not sufficient. The World Declaration for All emphasizes the importance of ‘what people learn as a result of participation’ is more important. This implies reducing the rates of dropouts/failures. This depends on the quality of teaching and learning. One key determinant is the quality of the teaching force. Learning is assessed in terms of proficiency acquired out of the teaching.

A quality teaching force should be able to

- teach mixed classes;
- deal with complex language issues;
- be sensitive to social cohesion;
- adapt to different learning styles.

Table 5 gives details about teacher qualifications in the secondary sector. Only 64.6% of the teachers are degree holders for the academic stream.

Table 5 - Qualifications of teaching staff in secondary schools (2004)

	School Certificate or equivalent	Higher School Certificate or equivalent	Certificate or Diploma	First Degree	Post-Graduate	Not Stated	Total
Academic	261	829	1,167	3,589	545	5	6,396
Pre-vocational	50	346	75	99	6	2	578

Source: Report (August 2006) by ADEA, entitled “Initiating and Conducting an Experimental Peer Review Exercise in Education in Africa”)

For the prevocational stream only 18.2% of the teachers are degree holders. The quality of education and learner achievement depends on the competence and motivation of teachers in an environment conducive to learning.

In his article on Schools at the Centre of Quality in ADEA Newsletter, Special Issue – Biennale, January – March 2006, Adriaan Verspar, ADEA Consultant, shares his findings and recommendation regarding effective schools following studies conducted in African countries. He stresses

- that good learning outcomes are associated with teachers who plan for teaching, put into practice what they have learnt(particularly in-service courses);
- the focus on teacher learning processes and how to improve them;
- the key roles of head teachers in monitoring learner performance and teaching practices.

We cannot under-estimate the critical importance of the continuous professional training/development of teachers and head teachers/rectors/managers at all levels in the quality of teaching and learning outcomes.

Tertiary Education

Students who complete the HSC successfully proceed to tertiary level education. The formal entry requirements for tertiary education is HSC/2 A levels. Students either resort

to the local (public or private) providers or overseas providers depending on the programme of study and the resources available.

The report (Page 103 Para 264) by ADEA, entitled “Initiating and Conducting an Experimental Peer Review Exercise in Education in Africa” August 2006) notes

“Over 50 % of the high school graduates are still struggling, unsuccessfully to have access to local public institutions. All the initiatives taken since the early 2000 to increase opportunities in this area have proved to be insufficient to meet demand”.

Despite considerable progress, access to tertiary education is still limited. According to the document “Participation in Tertiary Education” published in June 2007 the Gross Tertiary Enrolment Rate (GTER) stood at 34.1% in 2006. The GTER is calculated as tertiary education student population divided by the population aged 20 -24 the tertiary education student population includes

- student enrolment at local (public & private) and overseas institutions;
- students enrolled in tertiary education but not belonging to the age group 20 -24.

The public tertiary institutions are already being used at full capacity and further increase in number of students through the conventional system is unlikely. The rapid transformation of Mauritius into a knowledge based economy presents a number of other challenges.

SOME OF THE CHALLENGES

Education is the key means for social mobility and economic production. Mauritius largely relies on its people as its key resource. It cannot afford to lose significant proportions of its human capital if it wants to compete as a knowledge society in the global market.

At this stage of development, if the country wishes to participate successfully in a knowledge-intensive, technology driven, global economy, it requires a well-educated and trained workforce that is

- ❖ innovation receptive.
- ❖ capable of adapting to changing environment.
- ❖ characterised by problem-solving minded people with a predisposition to lifelong learning

The hurdles in the transformation of Mauritius into a knowledge based economy include

- **weaknesses in the education system.** The present system is characterized by considerable wastage. 30-35% of the children leave primary school without the basic numeracy and literacy skills. This results in low transition rate of only (65%) from primary to secondary schools. Inadequate basic education means a weak foundation for the knowledge based economy. Inequity and exclusion are also other features of the system. There is insufficient provision for children with special needs.
- **Inadequate provision for pre-service and in-service training of teachers, head teachers, rectors/managers:** There is no provision for pre-service training for all secondary school teachers. Some of them get the opportunity to follow in-service training programmes. There is no mechanism for on-going training in this sector.
- **Inadequate provision for tertiary education and lack of enabling framework for lifelong learning:** Our contemporary situation is characterised by
 - globalisation and the international competition that goes with it;
 - the swift evolution of knowledge and its swifter diffusion through the rapid development of information and communication technology (ICT);
 - modern aspirations towards a better quality.

All these features make lifelong learning a necessity. Diplomas and degrees gained between the ages of 18 and 25 is no longer an employment passport for life. Employability is becoming a concern for everyone. The economy has its changing requirements, and we must realise that training stays in line with employment prospects. This implies meeting the diverse needs of adults – not only the traditional clientele and until now under-represented in tertiary/further education. This clientele suffers from three handicaps:

- **economic** (in the case of those who need to find a place in the job market),
- **psychological** (people who are shy of the school system: many will have left it after failing in some way);
- **academic**, since they do not have the normal qualifications for access to tertiary/further education.

Thus the new environment is characterised by a

- ❖ **Diversity of learners:** The learning experience to be provided is not be limited to those between five to twenty five years of age, but will be of potential interest to all individuals at all stages of their lives. This includes women tied to the home, the physically disabled or even old age people who have retired.
- ❖ **Diversity of goals** : The learners choose to study for a variety of reasons and objectives. They decide what they want – whether for skills upgrading or intellectual development.
- ❖ **Diversity of contexts:** Full-time education within time-tabled constraints is accessible to only a few. For many participants learning must take place at a location and at a time of their choice.

If Mauritius wishes to participate fully in this knowledge-intensive, global economy, it must be able to produce sufficiently large numbers of scientifically and technologically-literate, innovation receptive, highly adaptable and problem-solving minded people with a predisposition to **lifelong learning**. This must be done within **an accelerated timeframe**. Lifelong learning, the indispensable key to the twenty-first century, now requires education/training institutions to rethink/review their structures, modes of functioning and attitudes.

RESPONDING TO SOME OF THE CHALLENGES

The potential barriers to a smooth and rapid transition to a knowledge based economy are due to a number of factors. One of them is the inadequate knowledge base and

inability of the present system to cope with the demands of the knowledge based economy.

The knowledge based economy requires that all educational/training processes should be both development oriented and learner-centred. The focus should be on capacity building/capacity strengthening of every citizen at every level. The conventional modes of delivering education and training are not able to respond to this challenge. Thus the education/training package should be flexible, of high quality and accessible at affordable cost.

This paper proposes Open Distance Learning (ODL) as a tool to address central issues like access, equity, inclusiveness, relevance and quality. What is Open Distance Learning?

OPEN DISTANCE LEARNING

Open Distance Learning combines two forms of education – open and distance. **Distance education** (DE) has been defined by scholars like **Moore, Keegan, Peters** and **Holmberg**. The major features of DE as identified by **Keegan** include the separation of the teacher and some or all of the learners, use of technology, provision of two-way communication, participation in the most industrialised form of education and privatisation of learning. (**Jenkins & Koul, 1991:P27**).

A definition of distance education is provided by Ian Mugridge (1991). He states that it is

"a form of education in which there is normally a separation between teacher and learner and thus one in which other means (the printed and written word, the telephone, computer conferencing or teleconferencing, for example) are used to bridge the physical gap".

A simpler definition, more open to expanded possibilities, would be that distance education should provide whatever educational opportunities are needed by **anyone, anywhere, at any time**.

The South African Department of Education (DoE) 1995 White Paper on education and training defines ODL as

“an approach which combines the principles of learner-centredness, life long learning, flexibility of learning provision, the removal of barriers to access learning, the recognition of prior learning experienceand maintenance of quality assurance over the design and support systems”.

One of the goals of ODL is to transcend the barriers of time and space between the teacher and the learner. ODL promotes learner-centred activities and flexible learning and teaching arrangements. This enables learners to learn at different times, in different places and in different ways. The hallmark of these approaches is the flexibility in which the approaches adapt to local conditions to meet the education and training needs of the learners and also the needs of the country. ODL offers a second chance (multiple chances) to those who missed earlier opportunities. Learners can earn and learn at the same time. Moreover, another obvious benefit of ODL is that it can provide access and opportunity to learners who cannot obtain education on account of various constraints.

Thus ODL is characterized by two factors:

➡ It's philosophy – that aims to

- remove barriers to education and training
- allow individuals to learn what they want, when they want and where they want

➡ It's use of technology to mediate learning, for example

- Printed materials
- Radio
- Audio/video cassettes/CD ROMs
- Information and Communication Technologies (ICTs).

USING ODL TO MEET THE CHALLENGES

Many international agencies are advocating the use of ODL to respond to the growing and diverse education/training needs. There is no doubt that ODL can be used as a major strategy to increase access, raise quality and ensure cost-effectiveness. ICTs have a critical role here. They are fast 'globalizing' two key functions of tertiary education institutions, notably, the provision of tertiary education and the creation of knowledge.

Effective use of Information and Communication Technologies (ICT) has the potential to

- bridge the distance between the learner and the teacher/tutor;
- transcend the barriers of time;
- increase access to quality education;
- offer flexible schedules and inclusive delivery mechanisms;
- bring down the cost to the individual learner.

The correct choice of media/technology is critical in the design and delivery of the right programmes for the right individual for the right outcomes. E-learning can contribute towards meeting the education and training needs of the knowledge based economy provided we are guided by strong pedagogical/andragogical principles.

A concept that has gained currency nowadays is **e-learning**. Aldwyn Cooper quotes the European Union definition of e-learning in his article *"The Challenge for e-learning"* in ICDE Open Praxis Volume 1 2004. It is

"the use of new multi-media technologies and the Internet to improve the quality of learning by facilitating access to resources and services as well as remote exchanges and collaboration"

E-Learning can play a key role in

- facilitating adult learning projects;
- developing global learning platforms;
- experimenting with various technologies in e-learning.

The advantages of e-learning include

- 24/7 accessibility
- being flexible in time and location;
- ease of update and the ability to adjust to individual learning pace;
- self-management, motivation and interactivity;
- consistent quality.

Aldwyn Cooper also quotes the CEO of Cisco Systems, John Chambers who said

“there are two great equalizers in life, the Internet and education. By combining the two, e-learning will be the great equalizer by eliminating the barriers of time, distance and socio-economic status; individuals can now take charge of their own lifelong learning”

However, there is a caution! We cannot rely blindly on technology to solve our problems. We need to ensure the right

- choice of technology;
- design of the education/training programmes in line with learner needs;
- attitudes and the right management and delivery systems with the right learner support.

Training of teachers: Training of teachers is an important area where ODL can make a major contribution. Teachers perform a wide range of activities that is subsumed under the general heading of ‘teaching’. These include

- planning and designing,
- demonstrating, guiding and telling;
- questioning, testing and recording;
- motivating, criticizing and even learning
- action research

Many of these aspects of a teacher’s role require significant expertise and the making of finely tuned and sensitive judgments based on both breadth and depth of experience. A new relationship needs to develop between learners and teachers in the knowledge

economy as education becomes more learner-centered, with individuals managing their own learning. Teachers become facilitators of learning. This requires continuous learning. Teachers must develop their own skills for the knowledge economy, including digital competence.

Considerable progress has been made in Mauritius in the use of ODL to train teachers but much more still remains to be done. On-going teacher training is crucial at pre-primary, primary and secondary levels to cope with the emerging complexities – to address issues related to equity and inclusiveness, improve quality of outcomes, reduce dropouts/failures. Training must be provided rapidly and regularly if we wish to

- ◆ bring about quality improvements at all levels;
- ◆ make the curriculum more relevant to our needs;
- ◆ increase the efficiency of the system;
- ◆ keep pace with the changing environment;
- ◆ promote a learning culture.

Continuous professional development opportunities can also be extended to Head teachers, Rectors/Managers of schools through ODL. Even at tertiary level, pre-service and in-service courses for academics would also help.

Using ODL to improve access and equity at tertiary levels: In the move towards a knowledge based economy there is an urgent need to expand access to tertiary education. Many countries making effective transitions to knowledge-based economies are substantially increasing access to tertiary education.

The Mauritian Prime Minister's message on the occasion of the celebration of 40th anniversary of the country's independence indicated the intention of Government to double the tertiary enrolment rate over the next ten years. This is a key requirement for the knowledge based economy.

The challenge faced in tertiary education is the provision of high quality tertiary education to the greatest number of citizens, at the lowest cost. In the process of expanding access and improving quality, institutions are also challenged to make tertiary education affordable. ODL enabled and delivered through a mix of media/technology can

address the issue of access to quality tertiary education at affordable costs and provide new and alternative ways of learning and capacity building.

Using ODL to promote equity and inclusiveness - a second chance/multiple chances - A knowledge society requires the participation of every body. Many people could not benefit from the education/training opportunities in the past for various reasons. They can now be brought into the mainstream of national development by upgrading their knowledge and skills through ODL. Different persons have different abilities. They cannot follow the 'fast' track. Some may not have had the opportunity to acquire the desired level of education earlier. Now they demonstrate the desire for education so that they can contribute to national development more forcefully. They comprise housewives, out of school youth and all those who have not been able to benefit from earlier opportunities for education.

ODL can also be used to cater for learners with disabilities

Persons with special needs must be integrated into the knowledge economy. This entails ensuring that attempts are made to provide these learners with the appropriate learning environment. People with physical and mobility difficulties, hearing impairments, visual impairments, specific learning difficulties can learn and continue to learn through ODL because of the openness, flexibility and the use of ICT ideally equipped to address the issue of inclusion of disabled persons in higher education. In this case the learning objects/materials need to be designed appropriately – Braille, colour contrast texts, voice recordings, etc

ODL for senior citizens

Improvement in life expectancy to 75.68 years for female and 68.92 years for males means that Mauritians are active for longer. According to projections of the Central Statistics Office, by the year 2016, 22.7% of the population will be 60 years of age and above. Even upon retirement, they can be kept intellectually stimulated. Again specially designed ODL programmes can be used to achieve this objective. What is important is the right ODL programmes designed for the right individual for the right purpose. Denying these people an opportunity to education means excluding them from the mainstream of development.

The following extract of a note from one of the learners of IGNOU published in the IGNOU Newsletter Volume 17 Issue 45 of October 2007 is relevant here:

Madam

As a retired Central Government Servant and senior Citizen aged 76, I am continuing the MBA programme – I have completed 18 of the 21 courses and continuing my learning, want to do the Degree in Intellectual Property Right and PhD in HRM. I thank you and all your colleagues and others at IGNOU for the flexible and innovative system of yours suiting the learners place, pace and time (and age too) and myself fortunate to be one of your students who have benefited from your great cultural service

*Battu Ganesh Sharma
Bangalore*

Employability of the workforce - Using ODL to provide opportunities for lifelong learning (LLL)

In his introduction to the COL/UNESCO publication “**Perspectives On Distance Education Lifelong Learning & Distance Higher Education**”, John Daniel, President of the Commonwealth of Learning writes

“The term “lifelong learning” is now part of the vocabulary of the industrialized world. It describes the need for people to continue their education and training throughout life because they will face multiple careers in changing economies and enjoy longer lives in evolving societies....”

LLL is a method of organizing and delivering learning in a manner that is intended to be learner-centric. It encompasses learning over the entire life cycle and all learning systems (formal, non-formal, and informal). It is increasingly important in the global changing economy.

The rapid continuous knowledge explosion and the disappearance of old fixed patterns of employment result in learners increasingly demanding a type of education that allows

them to update their knowledge/skills whenever necessary and to go on doing so throughout their working lives. Creative abilities are more and more important to face the challenges of the emerging knowledge economy and information society.

Education is 'living' and not 'preparation for life'. In the old school of thought, we could go to school to prepare for a future life and once we enter that life, stop learning and apply what we once learnt even when shifting contexts render it obsolete. LLL is not new, but it needs to be brought back to the forefront of our thinking about 'education as living' or better still 'learning as living.'

The Pay Research Bureau (PRB) recently published its report (May 2008) concerning its recommendations regarding the conditions of service of public officers in Mauritius. The report recommends 40 - 60 hours learning opportunities annually to each officer. Implementation of this recommendation can pose a serious problem unless flexible/ODL strategies are integrated in the education and training system.

Many organisations now recognize the need for 'just-in-time' education and training programmes. People need to change jobs several times and must learn to remain employable. The motto should be LLL for lifelong employability! LLL provides both human and social insurance against the uncertainty and unpredictability of the modern world.

ODL AND THE CHALLENGES FACING SMALL STATES

Quality of programmes and credibility of providers

Many ODL institutions have progressed quickly in the provision of tertiary education, with their cost-effectiveness, economies of scale, state-of-the-art delivery methods and ability to reach out to a wide international clientele. One example is the IGNOU. However, some people point out the drawbacks of such institutions as compared to the conventional campus-based institutions. They complain about lack of face-to-face contact between student and teacher, erosion of traditional academic values, loss of a sense of community and shared tradition, technological development at the expense of pedagogical standards and an emphasis on quantity over quality.

One set of challenges concerns the area of regulatory mechanisms and recognition of qualifications obtained through ODL for certification. Globalisation of education has brought about an erosion of the traditional role of governments in this sphere. Issues as quality, credibility and responsibility are often blurred. It often becomes difficult to monitor the quality of a particular programme or the trustworthiness of certain non-providers. Consequently they are unable to inform citizens on the quality of certain such programmes. This causes some confusion about the value of the degrees and the certificates in the minds of students and potential employers.

Another set of challenges concerns the availability of the professionals to

- design/develop the ODL instructions;
- manage the delivery and the learner support aspects of the ODL programmes;
- work within the philosophy of ODL. This is crucial for the quality of the programmes.

The use of ICT helps in the delivery and management of ODL. However, the right choice is instrumental in the success of ODL programmes. While improving the learning effectiveness, the technology must be user-friendly and accessible to the learners. Quality learner support is crucial in ODL. It is a real challenge to design learner support system that is responsive to diverse learner needs.

The costs of ODL can also be a tricky issue. People tend to think that ODL is always cheap. Considerable costs are associated with the design and development of ODL programmes. ODL programmes can become more affordable as we achieve economies of scale. But this may not always be possible for small states with a small population.

HOW CAN SMALL STATES DO IT?

One way to address the issue could be the right **collaboration and partnerships** among institutions within the country and also among the different states. This would enable the

- sharing of expertise, resources and programmes;
- adaptation/adoption of existing ODL programmes;

- enhanced quality of programmes;
- collaborative design and development of ODL programmes;
- cost-effectiveness of the ODL provisions by achieving economies of scale;
- development of quality standards and accreditation mechanisms and arrangements for recognition and credit transfer.

The COL has facilitated the creation of the Virtual University for Small States of the Commonwealth (VUSSC). It is a collaborative consortium rather than a new institution. While they can develop courses/programmes virtually, the courses/programmes can be delivered through a mix of methods – distance, face-to-face and online. The members can create open educational resources (OER) applying systematically quality assurance processes.

The concept document (May 2008: Page 11) for the **‘Transnational Qualifications Framework (TQF) for VUSSC’** proposed by the Commonwealth of Learning notes that

Potential benefits of a TQF noted by small states include portability of qualifications; improved ease of credit transfer; increased stakeholder confidence; improved networking between quality assurance and qualifications agencies; and the establishment of appropriate benchmark standards for the recognition of overseas distance-education programmes.

The quality of the enabling environment is arguably the single most important factor in stimulating the use of information technologies on a broad scale in any country.

The words of **Dr G. Dhanaragen, the President of COL (in 1999)**, during his visit to Mauritius between 7 – 11 August 1999, are inspiring

The delivery of quality distance education to learners anywhere in the world is limited only by our imagination. We have the knowledge, experience and skills to bring together the people and partnership. Today we have the technology. What we need now is the vision to make it happen.

The bigger picture is increased educational opportunities for everyone, accommodating different situations and needs to achieve quality outcomes.

REFERENCES

Bunwaree, S (1994): *Mauritian Education in a Global Economy*, Rose Hill, Mauritius: Edition de L'Ocean Indien.

Fagerlind, I and Saha, L J (1997): *Education and National Development: A Comparative Perspective*, Oxford and New York: Pergamon Press Limited.

Mugridge, I. (1991): *Distance Education and the Teaching of Science*, Impact of Science on Society

Heward, C and Bunwaree, S (1999): *Gender, Education and Development: Beyond Access to Empowerment*, London, U.K: Zed Books Ltd.

Delors, J et al (1996): *Learning: The Treasure Within*: Report to UNESCO of the International Commission on Education for the Twenty First Century, Paris, UNESCO

Adriaan Verspoor (2006): ADEA Newsletter, Special Issue, Biennale January - March 2006, Vol 18N1

IGNOU Newsletter, (Page 24): Bi-Annual Publication, Volume 17, Issue 45 October 2007, New Delhi, India

Central Statistics Office (2005): Economic and Social Indicators, Number 523, Mauritius

Tertiary Education Commission (TEC) (2007): Participation in Tertiary Education 2006, TEC. Reduit, Mauritius: TEC

UNESCO/COL (2005): (*"Perspectives in Distance Education - Lifelong Learning & Distance Higher Education"*). UNESCO/COL Paris, France

ADEA Report (August 2006): "Initiating and Conducting an Experimental Peer Review Exercise in Education in Africa") ADEA

Education Card 2005 Statistics (2006): Published by the Ministry of Education and Human Resources, Mauritius

Distance Education Vol 26 No 2 August 2005 pp 183 – 204, Open and Distance Learning Association of Australia, Australia

Pay Research Bureau Report (2008): *Conditions of Service in the Public Sector*, Pay Research Bureau, Port Louis, Mauritius

Richard Tompkins and Pat Deloney (1995): Inclusion: The Pros and Cons. Retrieved on 18 March 2008 from <http://www.sedl.org/change/issues/issues43.html>