# Implementing Open and Distance Learning to Expand Higher Education in Developing Countries: A review of literature

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Abstract

This study aims to evaluate the use of ODL in Egypt, as a tool for expanding access to Higher Education (HE). This review aims at are seeking to discuss and understand the rationales' and the methods that many developing countries have used to implement open and distance learning as a sub-system to expand the access of enrolling in their university degree systems. This review seeks to know the challenges and difficulties that many developing countries are facing to provide their people with more opportunities to participate in university degree programmes. Furthermore, the review seeks to analyse and understand the why open and distance learning has been suggested as one of the possible solutions for developing countries to expand their HE system to accommodate the additional numbers of pebble who want to enrol in university degree programmes. It is also important, to review the various terms and concepts related to this field of study (ODL).

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## 1.    Introduction:

As this study is a part of my PhD thesis, titled "*Open and Distance Learning in Higher Education in Egypt: An Evaluation of the Degree Programmes of the Centre of Open Learning in Cairo University (COLCU)*"[1] which aims to evaluate the use of ODL in Egypt, as a tool for expanding access to Higher Education (HE). This review aims at are seeking to discuss and understand the rationales' and the methods that many developing countries have used to implement open and distance learning as a sub-system to expand the access of enrolling in their university degree systems. This review seeks to know the challenges and difficulties that many developing countries are facing to provide their people with more opportunities to participate in university degree programmes. Furthermore, the review seeks to analyse and understand the why open and distance learning has been suggested as one of the possible solutions for developing countries to expand their HE system to accommodate the additional numbers of pebble who want to enrol in university degree programmes. It is also important, to review the various terms and concepts related to this field of study (ODL).

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[1] Ashraf, Moharram Farid (2021) "*Open and Distance Learning in Higher Education in Egypt: An Evaluation of the Degree Programmes of the Centre of Open Learning in Cairo University (COLCU)*" unpublished PhD thesis, University of Bath, UK.

## 2. Developing countries and expanding HE

Expanding HE represents one of the national goals for both developed and developing countries. Internationally, the enrolment of students in tertiary education has grown from 28.8 million students in 1970 to 68.6 million in 1990 and to 88.1 million students in 1997. Moreover, it is in the developing countries that the increase has been highest. Between 1970 and 1997, the number of the students in tertiary education has increased from 6.9 million to 43 million[2]. Table 1 shows the gross enrolment ratio in tertiary education in the developed and the developing countries from 1970 to 1997.

**Table (1): Gross enrolment ratio in tertiary education (percentage of 18-24 years old).**

|  |  | 1970 | 1975 | 1980 | 1985 | 1990 | 1995 | 1996 | 1997 |
|---|---|---|---|---|---|---|---|---|---|
| Developed | M and F | 26.1 | 33.5 | 36.2 | 38.6 | 44.5 | 50.1 | 51.0 | 51.6 |
| Countries | Male | 31.8 | 37.8 | 36.2 | 37.4 | 42.6 | 46.5 | 47.1 | 47.7 |
|  | Female | 20.3 | 20.3 | 36.1 | 39.8 | 46.4 | 53.9 | 55.1 | 55.7 |
| Developing | M and F | 2.9 | 3.9 | 5.2 | 6.6 | 7.1 | 9.1 | 9.8 | 10.3 |
| Countries | Male | 4.0 | 5.1 | 6.7 | 8.2 | 8.5 | 10.6 | 11.4 | 12.0 |
|  | Female | 1.7 | 2.7 | 2.7 | 4.9 | 5.7 | 7.5 | 8.1 | 8.6 |

Source: UNESCO Statistics Yearbook 1999, II.S.5.
M and F = male and female.

Table (1) shows that "between 1970 to 1997" the enrolment ratios in tertiary education in both developed and developing countries have increased. The table shows that in terms of the absolute ratios, the chances for the students of developed countries of enrolling in tertiary education were much higher than they were for students in the developing countries. Also, the table shows that "between 1970 to 1997" the developed countries have expanded their tertiary education to accommodate more than 50 percent of the

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[2] For more details about gross enrolments in tertiary education see, UNESCO Statistic Yearbook, 1999: II.S.3.

people who are in the age group 18 to 24 years old, while the developing countries expanded enrolment for no more than 10.3 percent of the people who are in the same age group. Since 1980 the gross enrolment of females in the developed countries has been higher than for males, while in developing countries it was almost the same for both genders.

However, these data for developing countries reflect a remarkable effort to HE with a more than threefold increase during this period. The parity between male and female students is noteworthy. The differences between the genders in terms of having equal opportunities for accessing HE will be discussed later in this chapter.

Within this larger debate, the key question concerning the growth in demand for tertiary education is: Why are countries and more specifically developing countries expanding their HE systems? On the face of it, the answer(s) to this question may seem straightforward as many writers, for example DuBridge (1953); Burn (1980); Maliymakono, Ishumi, and Wells (1982); Birt (1988) and Mendis (1988) have argued that expanding HE is a necessity for all countries. Their view is that, HE plays an important role in supporting economic development, social equality, liberation and democracy. However, the very complexity of the role of HE that these authors point to makes this general answer problematic when examined more closely.

### 2.1 Expanding HE to meet the policy of nationalism and economic development

Historically, HE has, and may still be playing an important role in developing countries that have gained independence. Many of them gained their independence after the Second World War as a result of the move to de-colonisation. On the one hand, these recently independent governments have used HE as a political tool toward achieving their ideologies such as,

nationalism, communism, capitalism or even religious ideology. On the other hand, HE was also recognised as a means for achieving economic independence. Datta (1984), in his sociological study of education and society in Africa, explained that:

In the late colonial and post-colonial period, education development in Africa has been characterized by three main processes: (a) a massive expansion at all levels; (b) the provision for technical and professional instruction; and (c) the Africanization of the curricula (pp. 21-22).

He also argued that developing countries have considered two aims for education. Generally these are to accomplish independence in principle and independence in practice from former colonialist powers:

Education was seen as a means of bringing about economic development and cultural self-assertion, the two other objectives of the anti-colonial struggle (ibid. p. 22).

Central to the drive for genuine political and economic independence was the need for qualified people to manage the sectors that previously had been managed by the colonisers, including government itself3. Hardiman and Midgley (1982) support the notion that the expansion of HE was to sustain the processes of independence, pointing out that:

*The drive to increase HE rapidly in most developing countries has been linked with the processes of independence. Not only has there been a new emphasis on development, there has also been the immediate need to fill posts formally occupied by colonial officers in the administration and services (p. 190).*

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3 For more details about the relation between expanding education and independence see: Hardiman and Midgley (1982: 182-209), see also Makulu (1971: 29-31).

In this context, economic development has been one of the important challenges and concerns of all developing countries. Maliymakono, et.al. (1982) reported that:

Most countries in the developing Third World now seem to believe in, and …emphasise, the view of education as a public industry in which society should consciously invest for manpower development (p. 3).

The development of human capacities to enhance national economies thus deserves the full attention of higher education. In parallel with the developing countries' governments' purposes of expanding HE, there was also a great public interest in education, which has been an important lever in expanding HE.

## 2.2 Expanding HE to meet public demand

Enrolling in HE represents an aim for many people and there are many reasons for them to enrol in HE. As wider societies have benefited from HE, individuals too have gained a substantial benefit from the HE they have received and hence, parents have pressured governments to provide their sons and daughters with opportunities for enrolling in HE. Nwagwu, (1998) who studied the academic and vocational preferences of 360 Nigerian secondary school students, found that a very high percentage (84.2%) of the graduating high school students would like to proceed into higher education on successful completion of their secondary education. In fact, this is the same trend almost everywhere in developing countries. This research showed that these students preferred to go into HE for the following reasons:

- *Increased knowledge and skills acquired from higher education would enhance opportunities for well paid employment.*

- *Little status is accorded to those without a university degree or money, in Nigerian society.*
- *Possessing the intellectual capacity and ambition to benefit from higher education.*
- *Higher education would enable individuals to occupy positions of authority and responsibility (ibid. pp. 119-120).*

There are both social and individual returns to graduating from HE institutions. The World Bank in its' report higher education in the developing countries (2000a) observes that:

*In Latin America as a whole, a worker with 6 years' education earns 50 per cent more than someone who has not attended school. This gap increases to 120 per cent for those with 12 years' education, and exceeds 200 per cent for those with 17 years' education (p. 38).*

Psacharopoulos (1988) has argued that the rates of private return on education tend to be higher in primary education, followed by secondary and then university levels (p. 101). However, his study shows that the returns from education are great at all levels in terms of society and individuals[4].

However, Psacharopoulos' findings have been challenged. Rwomire (1998) has argued that in developing countries the private returns to university level education are higher than for primary and secondary education. He points out that in Africa and in some occupations such as a doctor, the earning may reach '100 times as much as that of a mechanic' (p. 15). Additionally,

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[4] Many scholars assumed that the investment in education is profitable as there is the social and the private return of this investment is high. For more details about the Human Capital theory see for example: Schultz (1961, 1981, and 1987), Becker (1964 and 1975) and Psacharopouls (1988 and 1994).

Simmons (1980) investigated the relation between educational level and annual earnings in both developed and developing countries. He found that:

*In developed countries the ratio of average annual earning for those with higher education to those with primary range from 2.13 to 2. 63, whereas in developing countries they range from 2.24 to 12.07' (p. 35).*

Moreover, the policies of the World Bank, as an important donor for supporting education in many developing countries, have changed since the 1980s from supporting the expansion of vocational education toward supporting the expansion of primary and HE in these countries. The previous trend, during the 1970s and 1980s, was towards expanding vocational education as an important tool for achieving economic development in those countries5 (Watson, 1993; Sifuna, 1992; Foster, 1987; Psacharopoulos, 1985). The reasons for changing their policies are that:

*HE simultaneously improves individual lives and enriches wider society, indicating a substantial overlap between private and public interest in higher education … HE raises wages and productivity, which makes both individuals and countries richer. It allows people to enjoy an enhanced "life of the mind", offering wider society both cultural and political benefits. And it can encourage independence and initiative, both valuable commodities in the knowledge society' (World Bank, 2000a: 37).*

### 2.3 Expanding HE to meet global challenges

In recent years, new concepts and/or trends have challenged HE such as, 'international co-operation'; 'globalisation'; 'the global economy'; 'the knowledge society' (Mok 2000 and

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° The UNESCO conference on technical education (1976) argued developing countries to develop technical education at both secondary as well as higher education levels.

Brown and Lauder 1996). Slaughter (1998) examined the relationship between changes in national HE policies and the global economy emphasising the significance of HE in the new global economy because:

*Universities are the central producers of technoscience, the primary product of post-industrial economies (ibid. p. 57).*

The impact of these global and knowledge economy trends is much greater on developing countries than developed countries. On one hand, such trends could open new opportunities for some to have a share in the international market, as the Asian tigers have done (Jarvis 2000; Green 1999). A skilful and knowledgeable labour force is one of many factors that multi national companies consider when deciding to invest in a country. On the other hand, these trends could also open the way for more competition between different HE institutions, nationally and internationally6 putting those in developing countries at a disadvantage. Clearly the way developing countries respond to this challenge will be crucial.

## 3. The dilemmas facing developing countries in relation to HE7

The major problem facing developing countries in the light of global economic changes is that these changes will demand greater resources being put into HE, unless more cost effective ways of delivering HE can be found, when already their budgets are stretched. For example, the public expenditure on education

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6 More details about the impact of these trends on HE see, Center for Higher Education Policy Studies (2001), Research Programme 2001-2005,'*HE and the Stakeholder Society*', Netherlands: University of Twente.

7 That global changes are creating major problems for developing countries' HE systems is reflected in the events such as the UNESCO world conference on Higher Education in the Twenty-First Century, the participants concluded: The problems of higher education and education in general are one of the great challenges confronting societies in this century. Higher education, for its part, is faced with the challenges of preparing itself to fulfil its mission adequately in a world in transformation and to meet the need requirement of this century. Which will be the society of knowledge, information and education (p. 66).

between 1994 to 1997 for selected developing countries as a percentage of Gross National Income (GNI) was as follows; Sudan .09, Chad 1.7, Zambia 2.2, Vietnam 3, Syrian Arab Republic 3.1, India 3.2, Korea Rep. 3.7, while for the developing countries the figures were as follows: Germany 4.8, Spain 5, United Kingdom 5.3, Australia 5.4, United States 5.4, France 6, Finland 7.58. The GNI of the majority of the developed countries was much higher than it was for the majority of developing countries. As a result, the amount of public expenditure on education, in some developing countries was sometimes up to 100 times lower than in some developed countries.

In addition to the problem of resourcing HE, it has been argued that developing countries' HE policies have been misguided, therefore making a difficult situation worse. There are two particular issues that have been raised in this respect. Vessuri (1998) has criticised past policies of HE in developing countries highlighting the fact that:

*In industrialised countries, HE system shares with other public and private structures the responsibility for creating and transfer of knowledge… While in developing countries, knowledge tends to be treated by governments as one more good in a totally open market: its to be bought wherever it is already available and/or cheapest, without much concern for having domestic capabilities relevant to the creation, transfer or adaptation of knowledge within national boundaries (p. 77)*

However, in the new global economy, unless there is an indigenous capability that can engage with the latest developments, knowledge transfer and adaption is likely to by-pass developing countries. In particular developing countries need experts that can

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^ For more data about all countries' expenditure on education as a ratio of their GNI, see UNESCO (2001), World development indicators, pp. 78- 81.

be part of a global network of researchers and knowledge specialists, who can train their own populations and who can adapt innovations in ways appropriate to their own countries.

However, in addition to failing to nurture such indigenous capability, it has been argued that developing nations have adopted expensive Western models of HE.

Several commentators have criticised developing countries in this regard Hardiman and Midgley (1982) have explained this tendency in terms of developing countries' eagerness to catch up the industrial societies:

*The desire to catch up quickly with the industrialised countries led to the adoption of Western models of tertiary education, rather than the creation of new models which would have been more appropriate (pp. 190-191).*

However, they argue that Western models were the most expensive models to adopt. Rwomire (1998), Watson (1993, 1988) and Mosha (1986) have elaborated on why the Western model was so expensive. For example, Rwomire (1998) has identified three problems facing the African universities which makes the Western model unsuitable:

*The African university is a very expensive enterprise, with its demand for European-type physical facilities, subsidised European-type living quarters, and a salary structure that bears no relationship whatsoever to social justice in the country (p. 12).*

At the same time, he notes that these universities 'lack the required numbers of quality lecturers and researchers' (ibid. p. 12). Consequently, adopting the Western HE model was unhelpful because of the lack of the 'necessary accompaniments' (ibid. p. 12) that were needed to adapt such models efficiently. To emphasise this point, Watson (1988) highlighted the fact that the cost of

producing graduates in developing countries may range from 80 to 400 times as much as producing a primary-school leaver (p. 145).

In this context, critics have argued that the role of overseas aid has been to merely emphasise the inefficiency of the cost structure of a western model of HE. According to Watson (1993), apart from the fact that donors have different interests in supporting different educational sectors, the largest portion of aid was spent in supporting secondary and tertiary education, while the returns of that education were limited in relation to improving the whole society. He argues that this situation can best be observed in Sub-Saharan Africa:

*The support can best be seen in Sub-Saharan Africa where education development has been distorted in favour of university expansion at the expense of basic education. Over 20% of local education budgets go to support barely 2% of the age group and 95% of overseas aid goes to support secondary and tertiary education projects. (p. 70).*

The issue concerning the best models for expanding HE opportunities in developing countries points up the tensions between spreading limited funds across all education sectors efficiently. The key question, then, is whether there are other models for expansion available which provide a viable alternative to traditional Western models. However, before addressing this question directly we need to examine the issue of who has benefited and who should benefit from HE expansion in developing countries.

Groups that have benefited from HE expansion in terms of access and equity, no doubt, the degree of access to participation in HE is different from country to country and from developed to developing countries. The range of access is much larger in the former than the latter (See table 1). Because of financial difficulties, many developing countries have been unable to provide a place for every one who has wanted to enrol in HE and therefore, most of them have adopted a selective entrance policy to allow secondary school

leavers to enter HE.  Herman (1995) notes that the universities in South Africa were adopting an entrance policy based on the students' academic merit.  He showed that access to HE was unavailable to all South African secondary school leavers and that the socio-economic background of students' families was playing an important role in their academic achievements.

Therefore, the issue of equality between different groups accessing HE has been one of the major concerns of many researchers.  Handa and Gordon (1999), Njeuma (1998) and Rwomire (1998) have studied the HE situation in different developing countries and all of them assume that poverty is the main factor preventing some students from participating in HE. One of these researchers in this respect was Jayaweera (1997) who studied the relation between Women, education and empowerment in 23 Asian countries.  Referring to the general HE policies including entrance policies, she argues that:

*Class rather than gender has affected the access of the majority of girls in these countries to education (pp. 416-417).*

Moreover, Rwomire (1998) argues that the consequences of educational policies in developing countries have been to increase social inequality between different groups in society. Supporting students from rich backgrounds at the expense of students from poor backgrounds.  He describes students, who enter university, as follows:

*They are coming from middle to upper-income families from the rich…They are better fed and cared for and are more exposed to those things conducive to the development and advancement of cognitive skills useful in schools and in white-collar work (p. 16)*

Therefore, the socio-economic background of students appears to be one of the important factors for academic achievements, especially when they leave secondary school to

go to university.  Griffin and McKinley (1994) in support this view writing:

*The majority of the population, particularly the poor, may lack adequate educational facilities, or may find that the opportunity cost of attending schools exceeds short-run private benefit, while the children from middle- and upper-class backgrounds benefit from comparatively generously financed university education (p. 39)*

Moreover, many scholars have linked the adoption of Western models of HE to social injustice in developing countries.  They argue that because of the cultural differences between Western industrialised societies and developing countries, there is no guarantee that applying the social equality of the former to the latter will bring similar success (Farrell, 1982; Herman 1995).  According to Herman (1995):

*Some of the basic theoretical constructs used to attempt to understand social equality within the experience of the industrialised nations of the West are not automatically applicable to the diverse and changing cultures and societies of the developing countries (p.262).*

The consequences of this discussion reinforce the view that alternating HE models are needed for developing countries from both resourcing and equity perspectives.

## 4. Expanding HE in developing countries: The way forward?

There have been many suggestions for policies to expand HE efficiently and fairly. For example, the World Bank (1994, 2000a), Ahier (2000).  However, perhaps the most important policy proposals and practice relates to ODL programmes.

## 4.1 Implementing ODL programmes to expand HE in developing countries

Many writers have suggested that ODL programmes can be one of the solutions, even the most efficient solution, for delivering HE to larger numbers of students and consequently expand their chances of participating in it. For example, Harris (1987) was one writer who believed that the flexibility of distance education could provide a solution to the dilemmas associated with HE expansion:

*Distance education is likely to become a major issue for discussion in HE if numbers of students fall again, if the cost of HE become the subject of political debate, or if wider access to HE become desirable. Distance education seems to offer solutions to all of these problems separately, and, probably uniquely, to offer single solutions to each of them simultaneously: access can be widened, to adult students or to other desirable target groups, and at a most favourable set of costings (p. 1).*

The history of the use of ODL programmes in some developing countries, such as South Africa, India and China was another factor that has encouraged other countries, such as Tanzania, to start implementing such programmes9. Harry and Perraton (1999) note that the growth of ODL within developing countries is great and since 1990 many new ODL institutes have been established, such as the Open University of Bangladesh and the National Open University in Taiwan, as well as the increased numbers of dual-mode institutions10.

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⁹ For more details about the history of ODL in these countries see Dodde, Nonyongo and Clennie (1999); Panda (1999); Ding (1999) and Mmari (1999).

¹⁰ Dual-mode institutions are conventional institutions, which have departments for DE and offer their degrees in both ways On- Campus and Off-campus. For more details about the typology of distance teaching systems see, Keegan (1993).

The World Bank Development Report (1998) titled Knowledge for development emphasised the advantages of the use of ODL programmes as a less costly means of widening access to HE in developing countries. The report stated that:

*Distance education has been advocated as a cost-effective means of increasing the numbers of qualified teachers particularly in South Asia and Sub-Sahara Africa (p. 54).*

The report encouraged other developing countries, which had not started, to implement this kind of education. Furthermore, the report indicated that for those developing countries, which find it difficult to 'provide relevant and good-quality higher education at an affordable cost, distance learning may be a viable alternative' (ibid. p. 54). Moreover, the World Bank (2000a) points out that the largest five programmes of ODL, which are all, based in developing countries confirmed that

*Distance learning has great potential in the developing world, offering a powerful channel for bringing education to groups that have previously been excluded (p. 31)*

For these reasons many developing countries have started, and others are going to start, implementing ODL programmes to expand HE. The use of the ODL programmes in developing countries has gone beyond the idea of expanding HE. According to Holmberg (1995) DE has been considered in developing countries to deal with many aspects of continuing education and lifelong learning. He notes that

*There are programmes, such as literacy programmes, further training of men and women who are active as teachers of young people and who themselves have little formal educational background, health education and family planning, rural development and various kinds of occupational training and in*

*some cases higher education is considered to be one of the ODL programmes (pp.153-155).*

In general the programmes of training unqualified primary teachers have been the most common. These programmes have been dealing with two aspects: to retrain unqualified teachers and also offer them a university degree or certificate. Therefore, it is possible to count these programmes as part of the expansion of HE. Such programmes are delivered in Bangladesh, Botswana, China, Ghana, Kenya, India, Lesotho, Malawi, Nigeria, Namibia, Tanzania, Zambia, amongst many others.

However, some scholars who supported implementing ODL programmes in developing countries, have also outlined the conditions that need to be met to ensure their success. For example, Kuhanga (1981) has argued that to implement successful ODL programmes, the programmes have to be supported politically and financially, have reasonable numbers of students and varieties of courses, possess good communication facilities and finally have technical assistance or expertise. He recommended that if these factors are not in place, especially the political support, they will fail:

*Unless the leaders understand and accept the concept, the purpose for which the concept is to be used, and the ultimate results of its application, any efforts to put into practice such innovation may be futile (p. 15).*

Also, Srisa-An (1981) who is a supporter of ODL highlighted six critical problems or questions, which developing countries have to solve before even considering initiating such programmes. He explained that from his long experience with Asian ODL:

*The distance learning system is an innovation that will facilitate the democratization of the adult education process. It is easy to say this, but difficult to put it into practice (p. 27).*

On the practical side, there were many studies that have studied ODL programmes in developing countries, such as Costa Rica, Hong Kong, India, Iran, Kenya, Nigeria, Pakistan and South Africa (for more details about ODL programmes in developing countries see for example, Rumble 1982a and 1982b, McCormick 1982 and Fleming 1982). Apart from studies that discussed issues relating to the management of ODL in developing countries, most of the studies were descriptive. Few of these studies were comparative between different teaching-learning methods or evaluated materials used in ODL programmes. A few have compared ODL methods to those used to teach conventional university students. In general these studies have covered areas such as:

- The teaching-learning methods used;
- The materials delivered; and
- The students' supports systems.

The findings of the majority of the studies have showed that there were many difficulties affecting these programmes in terms of the quality of the teaching-learning materials, the quality of the teaching-learning methods and the quality of the students' support systems. Researchers such as Matiru (1987); Solera (1999); Rahmanujam (1999), believe that although implementing ODL in developing countries is important to provide disadvantaged groups with opportunities to access HE, in practice, there were many difficulties that limited the benefits from such programmes. Matiru (1987) in his study Distance education in Kenya researched the general problems of primary school teachers who enrolled in DE courses for the Teacher's Certificate. He found that many students were not happy with the printed materials and did not see them being effective in

delivering learning. He concluded, however, that the programme offered many untrained teachers the opportunity to be trained and have the certificate, but the lack of infrastructural resources limits the opportunities provided by ODL:

*Unfortunately nations like Kenya, which most need systems of telecommunications technology to teach their growing and geographically scattered population, lack the necessary infrastructure (Matiru, 1987: 70).*

Solera (1999) after studying the problems of the students' wastage in university distance education in Costa Rica concluded that the students who dropped out generally expressed the view that the university did not care about them and their problems. Similarly, Mahmoud, Hassan and Mahmoud (1999) when investigating Payam Noor ODL University (PND) in Iran stated that:

*Many students have been faced with a variety of problems owing to the unsuitability of study materials provided for them, the slow process of communication between the university and students residing in different parts of the country and other issues (Mahmoud, Hassan and Mahmoud, (1999: 5).*

Parallel to these studies, Rahmanujam (1999) studied ODL programmes in India with respect to the break down of socio-economic and cultural barriers for people with different disabilities. The study revealed that though the growing number of ODL institutions in India was impressive, they were not successful in addressing the educational needs of the disabled. He concluded that the reason for this was that:

*We tend to forget that openness is an approach or a philosophy that is relevant to both campus based institutions and distance teaching institutions, and expect only the Open University*

*which teaches through distance modes to practise open learning. Such a colonial approach must be given up. (Rahmanujam1999: 6)*

On the other hand, there were some writers who argued that it is not ODL programmes but it is the ODL approach to HE that can deal with the problems of expanding HE especially to the disadvantage groups. For example, Walker (1994) studied the potential impact of the open learning initiative on some disadvantaged groups in Australian HE. He concluded that:

*It is hoped that Commonwealth's investment in Open Learning represents a shift in policy from a belief that access and equity issues can be solved by specifically targetting disadvantaged groups to a policy encouraging openness and flexibility in Australian higher education (p. 109).*

Harry and Perraton (1999) declare that even in developed countries ODL is still struggling to gain acceptance and respect and is sometimes ignored by the conventional university system. One job to be done, therefore, is to establish that the quality of open and distance learning can match that of conventional university teaching (p. 7). Willis (1993) concluded that.

*Over the past several years, research exploring effective distance teaching efforts as well as evaluations of students attitude towards the use of distance delivery methods have resulted in some fairly consistent conclusions. These conclusions are worth considering when planning and implementing distance education programs, especially for rural and/or culturally diverse learners (p. 17).*

He pointed out seventeen conditions for effective DE. One of them was that teaching at a distance can be effective, if teaching techniques and delivery methods take into account the needs, diversity, and context of the distance learner:

*Distance education and traditionally delivered instruction can be equally effective if the distance educators put adequate preparation into understanding the needs of students and adapting the instruction, a teacher's understanding of the target population and their instructional needs is equally as important as mastery of the content being delivered (ibid. p. 22).*

It was clear, that many issues related to implementing ODL in developing countries still have to be addressed, mainly related to the quality of the programmes in terms of the teaching-learning methods, the teaching-learning materials and students' support. However, it is also important to assess whether ODL programmes are suitable for target groups from lower socio-economic and educational backgrounds. The previous analysis of the HE circumstances in developing countries showed that:

- These countries are facing difficulties in financing education and especially HE.
- The majority of these countries lack qualified academic staff to support HE.
- The target groups of any new forms of HE, compared to conventional HE students, are characterised by the following:
  A) The majority of them have low academic achievement in secondary school and/or
  B) The majority of them are typically from lower socio-economic backgrounds.

The assumption of this study is that, to ensure the success of implementing new ODL solution(s) to HE expansion in developing countries, these solutions have to engage with the issues addressed above.

Therefore, considering the circumstances of these developing countries, the main general question in this area of research is: Dose implementing open and distance learning (ODL) programmes an efficient solution to the purposes of expanding

HE in developing countries? In order to answer this question we need to analyse "in general detail" the nature of open learning (OL) and distance education (DE).

## 4.2 The concepts in the field of ODL

The debate over the meaning of the terms concerning the field of ODL began early in the 1970s and has continued up to the time of writing the thesis. In particular, there is a debate about whether or not the terms OL and DE are synonymous (See for example, Peters 1998: pp. 97-98). However, others have stressed the importance of carefully distinguishing between these concepts and many other concepts used in this field (Rumble 1989a, 1989b; Garrison 1989; Keegan 1983, 1988 and 1996 and Holmberg 1995). For example, Keegan (1996) pointed out that the proliferation of terms used in the context of DE can lead to confusion:

*The confusion can be highlighted by listing the terms used in English for this field of education: 'correspondence education' or 'correspondence study', 'home study', 'independent study', 'external study', 'distance teaching' or 'teaching at a distance', 'off-campus study', 'open learning', - and there may well have been more (p. 23).*

Moreover, the rapid development of communication technology used in the field of ODL has introduced some new terms such as, 'electronic learning (E-learning)', 'on-line learning', 'web-based learning' and 'virtual university', which has made the mission of the analysing and distinguishing these terms much more essential. However this part of the thesis, is concerned to discuss the concepts of OL and DE which are the most relevant to this study. The aim of this discussion is to find out to what extent these concepts can allow different people from various socio-economic and educational backgrounds access to HE.

### 4.3 What is the concept(s) of Open Learning?

Race (1994) has stated that 'the term open learning has been around for many years' (p. 29) and Keegan (1996) declared that the term OL:

*Became well known after the decision of the United Kingdom government in mid-1960s to rename the 'University of the Air' the 'Open University' (p. 27).*

The majority of the scholars who have studied the history of OL agree that it is about 40 years now since this term has passed into common educational language. However, McKenzie, Postgate and Scupham (1975) note:

*Open learning is an imprecise phrase to which a range of meanings can be, and is, attached. It eludes definition. But as an inscription to be carried in procession on a banner, gathering adherents and enthusiasms, it has great potential. For it's very imprecision enables it to accommodate many different ideas and aims (p. 21).*

According to Keegan (1996) and Delling 1994 (Cited in Keegan 1996), McKenzie and his colleagues when they analysed the two words of the term OL 'were reflecting on their own beliefs, which is that educationalists wish to be open rather than closed and learning supports student-centredeness rather than teacher- centredeness' (Keegan, 1996: 28). Therefore, it can be claimed that McKenzie and his colleagues established an important step in defining the concept of OL: in turning the focus from teaching to learning. However, they did not extend the analysis further because they thought the term too ambiguous. The UK's National Council for Educational Technology (NCET) (1990) pointed out, that the term

*Open learning is not a method of learning but a very broad concept. And concepts are notoriously difficult to pin down (p. 1).*

However, many other writers believe that OL is an elusive term11, while others such as, Holt and Bonnici (1988), Paul (1990 and 1993) and Peters (1994a) have attempted to pin down the concept. According to Holt and Bonnici (1988) OL is a multi- faceted concept which attempts:

*To reduce, if not eliminate, a number of barriers which either stop or impede certain groups of students from participating in formal education. Open learning also attempts to provide a learning environment, which will provide these groups of student, on entering various courses of study, with the best possible chance of successfully completing the learning experiences they have chosen. (pp. 245-257).*

Holt and Bonnici emphasised that their understanding of the concept of OL has two main aspects. The first is that OL aims to provide open access to the people who for whatever reasons have been prevented access to conventional education. The second is that OL aims also to provide a possible chance of success, as for them OL: 'is not just about opening up access alone, it is also about providing people with a fair chance of success' (ibid.). David (1991) supported Holt and Bonnici's contribution when he wrote:

*The two most common elements in descriptions of open learning are open access and expectation of success. The first of these is the aspect of 'open' most often met by learners and providers (p.2).*

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11 For the reason that some scholars believe OL is an elusive term, such as Foks (1987), argue that in educational circles giving a precise meaning of the term OL is much more debated.

Additionally, Paul (1993) supported the notion that the mission of OL is to help students overcome barriers that prevented them from accessing education, he wrote:

*The concept of open learning is merely one of the most recent manifestations of a gradual trend towards the democratisation of education. The use of the term 'open' admits that education and learning have traditionally been 'closed' by various barriers-entrance requirements, time constraints, financial demands geographical distance, and much more subtly, social and cultural barriers, as well as those of gender (p. 115).*

The main contribution of Paul to the concept of OL was that implementing OL could be an important tool toward making education a more democratic system and achieving the public demand of participating in education.

Understanding the concept of OL, as open access to education systems, was a key issue to expanding access to HE. Peters (1993a and 1994a) in one of his important studies titled Understanding distance education demonstrated more consideration for the philosophical face of OL, by distinguishing between OL and DE. In his opinion OL when being used to designate distance education emphasises the 'openness' of the teaching-learning process as compared to the 'closeness' of learning in traditional schools. It stresses that access to this kind of learning is easier 'open access' and that students are allowed to operate with a degree of autonomy and self-direction' (1993a: 12). He also explained that the main concept of OL is the openness, which:

*Does not refer only to decisions with regard to the place, time, duration and circumstances of learning but in some cases also with regard to the curriculum, as the students are free to select from pre-planned curricula or to develop curricula of their own (Peters, 1994a: 213).*

Based on the contributions above, there are two main issues concerning OL that emerge. These issues are:

- OL has two main principles underlying it: o*penness* and *flexibility*.
- OL can be implemented in all traditional and non-traditional forms of education.

Given the emphasis on openness, it can be suggested that a major factor of OL is in dealing with the people who for whatever reasons are prevented from having access to conventional education. We can, therefore, conclude that OL can be achieved if the system offers its students:

1. The freedom of choosing what they want to study, including the choosing of the subject or the programme and the content.
2. The freedom of choosing where they want to study.
3. The freedom of choosing when they want to start and finish study, including the choice of the duration of study.
4. The freedom of choosing how they want to study, including the freedom of choosing the teaching-learning methods, whether these methods are traditional (face-to-face) or at distance.

Therefore, theoretically OL could be the answer to people who, for whatever reasons, have been denied access to conventional HE. It gives them the chance to control their study at all levels based on their individual circumstances. OL, as it has been reviewed, can be recognised as an educational philosophy or policy that aims to expand the opportunity for everyone to access education and especially HE regardless the kinds of restrictions or barriers of conventional systems. Keegan and Rumble (1982a) agreed with Neil (1981) when he wrote:

*The concept of openness is linked to the idea of access to educational opportunities. It goes beyond the extent to with the*

*rules and regulations governing registration of students are restrictive of entry to a particular institution, to include the degree to which it is actually practicable for an individual to avail himself of herself of the learning facilities provided (Neil, 1981: 37).*

Peters (1998) in his book Learning and teaching in distance education has also developed his understanding of OL concept along similar lines. He stated eight important principles to ensure that ODL institutions would implement the OL concept successfully. These are: the principle of equality; equality of opportunity; lifelong and ubiquitous learning; open curricula; learner-relatedness; autonomous learning; learning through communication and interaction and finally relatedness to everyday life (p. 98).

However, while the concept of OL as understood above takes us forward, the concept of OL was not intended to provide a 'complete' solution for expanding HE in countries that were facing a lack of the necessary qualified academic staff (teachers and/or lecturers) and financial problems of funding HE. Therefore, to achieve the desired openness and flexibility, it is important to find solutions to some basic issues, which are:

In respect to the people who for whatever reasons cannot attend any kind of regular class, how can teaching be delivered to these people?

In respect to limited educational funds, how can these funds be stretched to produce a larger number of graduates without reducing the quality of the teaching?

In respect to limited numbers of qualified academic staff, can they teach a larger number of students without reducing the quality of the teaching?

The answer to these issues or challenges may be found potentially in ODL institutions such as, Open Universities (OUs) or Distance Teaching Universities (DTUs). Paul (1993) argues

that replicating the policy of the OU, which it is the most famous ODL institution, could assist in achieving the concept of OL in which it aims to:

*Provide open admission to adult students and, through flexible policies and a variety of delivery mechanisms, notably distance education, provide access to and success in university education to those previously denied such opportunity (ibid. pp. 115-116).*

Therefore, it can be claimed that applying openness and flexibility to these institutions requires them to provide their ODL students with the following:

- Flexibility in frequent admission periods, self-pacing and optional support services.
- Learner control over content and structure
- Choice of delivery systems and accreditation.

Kaye (1981) has described the key features of ODL systems as:

*An enrolment or 'opening' of educational opportunity to new target population previously deprived either through geographical isolation, lack of formal academic requirements, or employment conditions.*

*Concerning learning materials and teaching methods, which characterise the courses, the notable features are:*

*A flexible in the curriculum and content of the learning materials through, for example, modular structures or credit systems;*

*The conscious and systematic design of learning materials for independent study, incorporating, for example, clearly formulated learning objectives, self-assessment devices, students activities and provision of feedback from students to learning system staff and vice versa;*

*The planned use of a wide range of media and other resources, such as textbooks, audio and videocassettes, radio and TV broadcast, et cetera. (Pp. 18-19)*

According to Keegan and Rumble (1982b) the ODL institutes or the Distance Teaching Universities (DTUs) around the world, which are in existence in many developed and developing countries, are mainly offering their degrees through the use of distance teaching methods. The following table shows some of the DTUs around the world and their dates of incorporation.

**Table (2): The development of Distance Teaching Universities around the world[12].**

| University | Date of incorporation | |
|---|---|---|
| Open University, Milton Keynes, United Kingdom. | 1969 | OU UK |
| Universidad Nacional de Educacion a Distancia, Madrid, Spain | 1972 | UNED |
| Free University of Iran, Tehran, Iran | 1973 | FUI |
| FernUniversitat, Hagen, Germany. | 1974 | FeU |
| Everyman's University, Tel-Aviv, Israel | 1974 | EU |
| Allama Iqbal Open University, Islamabad, Pakistan. | 1974 | AIOU |
| Athabasca University, Alberta, Canada | 1975 | AU |
| Universidad Nacional Abierta, Caracas, Venezuela | 1977 | UNA |
| Universidad Estatal a Distancia, San Jose, Costa Rica | 1977 | UNED |
| Sukhothai Thammathirat Open University, Bangkok, Thailand | 1978 | STOU |

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[12] There are many other institutions in South Africa, Nigeria, Hong Kong and India. These institutions are mainly using DE modes of delivering teaching to their students. Hence, DE for them appears as a renewed educational system and mode, based on theories of learning psychology and utilising educational technology to provide self-learning strategies, making every individual the owner and author of his own advancement, improving the teaching-learning process, making it compatible with the most dissimilar condition of labour, living, health and age, and reaching almost everyone who is willing and able to learn. (Ochoa, 1981: 198).

| | | |
|---|---|---|
| Central Broadcasting and Television University, Beijing, China and 28 Local Television Universities | 1978 | CCTU |
| Sri Lanka Open University, Nawala, Sri Lanka | 1981 | SLOU |
| Open University, Heerlen, Netherlands | 1981 | OU |

Source: Keegan, D. and Rumble, G. (1982b).

It is clear that on the previous two pages, when the discussion turned to cover OL practice, some other terms such as ODL and DTU made an appearances. The use of these terms in practice reflects the correlation between OL and Distance Learning (DL), Distance Teaching (DT) and Distance Education (DE). Hence, it was important to find meaning of these terms and the relationship between them.

## 4.4 The concept of Distance Education and its relationship to Open Learning

The question whether or not OL and DE are synonymous has been addressed by many writers such as Keegan (1980, 1996), Dewal (1986), Foks (1987), Garrison (1989), Rumble (1989a and 1989b) and Holmberg (1995). For example, Holmberg in his book *Theory and practice of distance education* explained that the connection between OL and DE came from the strong influence of the British Open University (OUUK) and its adoption of the DE method, while in fact the word:

*Open originally referred to access and to the avoidance of certain restrictions; in itself it has nothing to do with distance education (p. 5).*

Dewal (cited in Holmberg, 1995: 5) pointed out that DE is not equivalent to OL[13]:

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[13] Foks (1987) stresses the same notion, he wrote 'open learning is not synonymous with distance education; nor is distance education a sub-set of open learning. Distance

*As distance education refers mainly to mode of delivery, open education refers to structural changes. A distance education institution can also be an open institution but not necessarily so. Open education refers to structural changes so as to make an institution open: open with respect to place; time; content of learning; mode of learning; etc…A distance teaching institution could be a 'closed one' (p. 8).*

Garrison (1989) did not just distinguish DL from OL, but he also distinguished OL as an educational concept from other terms that refer to the educational institutions that theoretical would implement the notion of OL. He wrote:

*Open learning systems are not equivalent to Open Universities or to distance education generally. Distance learning systems are largely concerned with reducing geographical barriers. On the other hand open learning systems are concerned with reducing geographical, socio-economic and psychological barriers. Openness refers not only to maximising access to education in terms of time and place but to supporting the learning process through choice of method and mode of communication (p. 119).*

Garrison explained that there is no guarantee that every institution called Open University would apply the concept of OL. However, the continued growth and success of the British Open University and the proliferation of other institutions purporting to offer Distance Teaching courses have produced this DE facts connection between OL and DE (See, Holmberg, 1995: 4-5). Hence, many scholars have asked if DE is not synonymous with OL then, what is DE.

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education is a mode of learning with certain characteristics which distinguish it from the campus-based mode of learning (p.74).

## 5.      The concept of Distance Education

Keegan (1996: 41-44) in his book *Foundations of distance education* was one of those who collated and analysed different DE definitions.   He collated nine definitions for DE and subsequently classified them into two main groups based on the date of their first being published.  The first group covered DE definitions that were introduced "between 1967 to 1977", while the second group covered five definitions introduced "between 1980 to 1994". The fact that Keegan did not analyse each one of them separately but analysed them as a group is problematic. Perhaps, it would have been more useful to select some of them and analyse each one of them individually, as I will demonstrate.

### 5.1 Dohman's definition (1967).

In this early definition, Dohman states that the original idea of DE is that it was concerned to help students to study independently and to be responsible for their teaching and learning.  He wrote:

*Distance education is a systematically organised form of self-study in which student counselling, the presentation of learning materiel and securing and supervising of student's success is carried out by a team of teachers, each of whom has responsibilities. It is made possible at a distance by means of media, which can cover long distance. The opposite of distance education is "face-to-face education": a type of education that takes place with direct contact between lecturers and students (Cited in Keegan 1996, 41).*

This definition highlights that DE is a kind of self-study, where it is organised to allow students to achieve success.  Dohman also justified two important features of DE.  The first feature is that DE learning materials are organised by teachers prior to the start of the study.   This is what today we call pre-prepared materials.   The second feature is that DE is the opposite of face-to-face education,

therefore, it is not possible to allow direct communication between students and teacher(s). It is clear from this early definition that already there were affinities between OL and DL since, here, DL is seen as form of self-study.

## 5.2 Peters' definition (1973)

In fact Peters' definition was different from many other definitions, in the sense that he described DE based on the notion of industrialisation and hence he identified some similarities between DE and mass production. He wrote:

*Distance teaching/education is a method of imparting knowledge, skills and attitudes which is rationalised by the application of the division of labour and organisational principles as well as by the extensive use of technical media, especially for the purpose of reproducing high quality teaching material which makes it possible to instruct great numbers of students at the same time wherever they live. It is an industrialised form of teaching and learning (Cited in Keegan 1996: 24)[14].*

The similarities between DE and mass production enhance the notion that DE was created to impart teaching to larger numbers of students. Hence, he believes that DE has to be typically organised using the same basis as for producing a large amount of goods. It is also important to mention that DE was created to introduce an economic solution for education's financial difficulties. Therefore, the importance of Peter's definition comes from the fact that it stressed the value of planning DE based on mass production

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[14] Peters (1994b: 159) also gave the following definition: Distance education is a system of rational actions for the imparting of knowledge, skills and attitudes, whereby the original direct social relationships between teacher and students are substituted to a great extent by indirect relations which are characterized by technical rules and prescriptions, a context-free language, conditioned prognoses and conditioned instructions, goal attainment with the help of target-means relations, and the systematic increase of effectivity.

processes where one of the main aims is to reduce the cost of the product (teaching and learning materials).

In this context, there may be four issues that have to be considered. The first issue relates to the available facilities including the technology and the experts needed to introduce these kinds of high quality teaching and learning materials (mass production). The second issue is the balance between introducing a standard package of teaching and learning materials and taking account of differences between students' educational backgrounds. The third issue concerns the question of whether these materials will rapidly become dated and whether institutions can carry the lost of the intensive labour in up-dating them. Finally, there is the key educational issue of how the industrialised packaging of the curriculum relates to principles of OL.

### 5.3 Moore's definition (1973 and 1977)[15].

Moore presented his DE definition when he wrote an article entitled "*Toward a theory of independent learning and teaching*" 1973 and repeated it in 1977 without modification. In this definition, he stressed that DE represents on of those teaching methods in which face-to-face interaction between students and teachers is absent. He wrote:

*Distance teaching may be defined as the family of instructional methods in which the teaching behaviours are executed apart from the behaviours, including those that in a contiguous situation would be performed in the learner's presence, so that communication between the teacher and the learner must be*

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[15] Moore introduced another definition of DE in (1990) as follows: 'Distance education is an arrangement for providing instruction through print or electronic communications media to persons engaged in planned learning place or time different from that of the instructor or instructors' (p. xv). In this definition Moore stressed that DE is a form of planned learning that needs to be facilitated through the use of the several kinds of communication media. The definition establishes the physical separation between students and instructor, but he failed here to repeat the crucial issue of social and psychological separation.

*facilitated by print, electronic, mechanical or other devices (Moore, 1973: 664 and 1977: 8).*

Moore also highlights that DE not only exists when a physical separation between students and teachers occurs, but also when psychological distance between students and their teachers exists. Therefore, DE is about the separation between the teaching behaviours and the learning behaviours. Thus, he believes that it is important to support students' learning through facilitating communication between students and teachers, hence the use of technology is given top priority to ensure the success of DE students. However, in this context the important question is: What kind of technologies can be used for that purpose and at what cost? This question in the context of developing countries is rather important because they may not be financially capable of investing in such technology.

### 5.4 Holmberg's definition (1977)

Believing that the physical separation between students and their teachers is the main feature of DE, Holmberg in his early work *Distance education a survey and bibliography* describes DE as follows:

The term 'distance education' covers the various forms of study at all levels which are not under the continuous, immediate supervision of tutors present with their students in lecture rooms or on the same premises, but which nevertheless, benefit from the planing, guidance and tuition of a tutorial organization (Holmberg, 1977: 9).

However, Holmberg believes that while DE, as a whole, is not a form of face-to-face teaching, DE students can benefit from immediate interaction with their teachers through tutorials. For him element of face-to-face teaching was important to overcome social and psychological separations.

### 5.5 Garrison and Shale's definition (1987)

In their paper *Mapping the boundaries of distance education* Garrison and Shale suggest that the main feature of DE is that form of education where the educational communication between students and teachers is non-contiguous, hence, the use of technology to allow two-way-communication, through teaching and learning processes is essential. They write:

*Distance education implies that the majority of educational communication between (among) teacher and student(s) occurs non-contiguously. It must involve two-way communication between (among) teacher and student(s) for the purpose of facilitating and supporting the educational process. It uses technology to mediate the necessary two-way communication (Garrison and Shale, 1987: 11).*

In harmony with this definition Barker, Frisbie and Patrick's definition (1989) pointed out that the advances in telecommunications made communication between instructor and students(s) possible at the same time and more effective. They wrote:

*Telecommunications-based distance education approaches are an extension beyond the limits of correspondence study. The teaching-learning experience for both instructor and student(s) occurs simultaneously, it is contiguous in time. When an audio and/or video communication link is employed, the opportunity for life teacher-student exchanges in real time is possible, thereby permitting immediate response to student inquiries and comments. Much like a traditional classroom setting, students can seek on-the-spot clarification from the speaker (p. 25).*

### 5.6 Portway and Lane's definition (1994)

The last definition, which is chosen in this section, is that introduced by Portway and Lane (1994). In this definition DE refers basically to two main features. They write:

*The term distance education refers to teaching and learning situations in which the instructor and learners are geographically separated, and therefore, rely on electronic devices and print materials for instructional delivery. Distance education includes distance teaching - the instructor's role in the process - and distance learning - the students' role in the process (p. 195).*

*A distinguishing feature of this approach is the conceptual separation of teaching from learning thereby inviting a distinctive analysis of the effectiveness of distance teaching as the conditions under which students best learn.*

It was clear that all of these definitions demonstrated that 'the separation of teacher and learner' is in large measure fundamental to all forms of DE whether they be print-based, audio/radio-based, video/television-based, or computer-based. This separation differentiates DE from conventional face-to-face teaching and learning, although some definitions include an element of face-to-face contact. The structuring of learning materials and the linking of these learning materials to effective learning by students through an educational organisation differentiates DE from private study, learning from interesting books or cultural television programmes (Keegan, 1996: 42).

From the above discussion there are certain common elements, which can be used to distinguish the concept of DE. For example, while Peters (1993a) demonstrated seven elements as a result of his analysis, Keegan (1980) summarised six elements from analysing these definitions. However, both scholars agreed that the main characteristics of DE are:

- The physical separation of teacher and student(s) is the main difference between DE and all forms of face-to-face lecturing.

- The use of technical media, usually printed materials, to unite teacher and students and carry the educational content
- The learning usually takes place in the homes of the students
- The teaching-learning process assumes the form of self-study, however guided by the teacher

*On the other hand, both analyses considered a variety of issues. A key issue raised by Keegan is the importance of facilitating two-way communication and occasional meetings so that DE students can communicate directly with their teachers. In contrast, Peters believes that the communication between teacher and student(s) through the exchange of mainly printed materials is sufficient. This raises the question of the importance of sociability to learning, and as we should see it has prominence in this study in relation to regular Friday meetings between ODL students and tutors in the COLCU programmes.*

*There is a final observation worth making: namely the development of these definitions reflects the increasing sophistication of the technology. Students and teachers can now meet face-to-face through teleconferencing and can exploit the web, thereby introducing an element of 'customisation' to the 'industrial' process although whether developing countries can afford the technology is a further question.*

## 6.    Conclusion: Does ODL allow larger numbers of students' access to HE?

It is claimed that ODL institutions have proved that the use of the distance teaching methods are efficient in terms of reaching disadvantaged groups. For example, Gao and Li (1994) note that in China the use of distance teaching through printed materials, audiocassette, videocassette, Radio and TV and the third generation of electronics and communication has enabled teaching in geographically remote areas. Yichun, Zhiqi, and Wanzhen (2001)

state that in China, the Central Agricultural Broadcasting and Television School has offered more than 1.3 million people with different types of education from the school system and 2.45 million farmers, green certificate training. Reid and Robertshaw (1992) declare that in Hong Kong the OL Institute (OLI), DE increased the numbers of student enrolments from 6000 in 1989 to about 17000 students in 1991. Mahmoud (2001) states that the DTU *Payame Noor University* accommodates 13 per cent of the total enrolment of state universities in Iran.

*However, access is only one element, the effectiveness of the learning is another? For example, Holmberg (1993) in his work Key issues in distance education asked a very important question related to the nature of DE: does DE mainly cater for cramming and/or does it represent a truly educational activity favouring student autonomy?:*

*A self-contained course, which does not cause students to consult other sources of knowledge, may on the one hand be very effective, but on the other hand, it may not engage students in a scrutiny of arguments and develop their thinking. However, such a course can easily become autocratic, telling students not only what to do but what conclusions are proper ones, thus depriving them of the exercise of their own criticism and judgement (p. 331).*

*However, Holmberg has raised only one side of the problem, as there are many other aspects that need to be addressed. For example, in respect to ODL students' situation he asked:*

*How learning can be achieved through the real interaction between teacher and students and even between student and student, since the majority of them are engaged in work and have social responsibilities and do not have time enough to spend in having a face-to-face teaching (ibid. p.123).*

*Even if we agreed that two-way communication through teleconferencing or meetings could ensure cognitive learning, in the necessary*

*social environment to achieve learning, questions about the methods allowing this two-way communication will still be valid in the context of developing countries in relation to their economic feasibility. At the same time, the production of pre-packaged materials has been criticised by Garrison (1993) as follows:*

*Since these materials prescribe objectives for the purpose of sustaining as much self-instruction as possible, then such an approach inherently reflects a behavioural orientation. The difficulty is that this approach is inappropriate to teach higher level cognitive strategies based upon understanding of complex and ill-structured content areas…Cognitive learning theory reflects understanding as a valued objective- not just observable and measurable behaviour (p. 12).*

In other words, there may very little that is 'open' about distance learning strategies. In this respect, McNay's (1988) criticisms may be relevant. He criticised ODL institutions because they have often been introduced to:

*Protect students numbers, not promote extension of access, or expansion of opportunities, and was often a substitute for traditional courses, not supplement to them (p. 128).*

*In fact the points raised in these criticisms are even more important in the context of developing countries. In conclusion, it can be claimed that the expansion of ODL programmes is not aiming to offer students with a real chance, rather it aims to provide disadvantaged groups with a cheap chance. Hence, to ensure ODL institutions provide effective access to HE systems, the current review shows that **ODL can be an effective solution for expanding access to HE in developing countries if:***

♦ **Unconditional access 'Open policy admission' is provided to all students.**

♦ **It addresses students' needs in accessing ODL and why they need to enrol in ODL programmes including their socio-economic and educational backgrounds.**

- ♦ **It provides students with an effective variety of teaching and learning methods to meet their different educational backgrounds.**
- ♦ **It provides students with effective support at all levels of study to meet their different backgrounds and experiences**.

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