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# Increasing education access through open and distance learning in Tanzania: A critical review of approaches and practices

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## ABSTRACT

With an area of 943,000 square kilometers, Tanzania has a population of about 34 million comprising more than 120 ethnic groups with diverse cultures and notable income differentials. Over 35 per cent of the people live below the poverty line which makes it difficult for an increasing number of people to access education at secondary, tertiary and higher education levels. The universalization of education and its worldwide acceptance as a continuous or lifelong undertaking, coupled with concerns about educational access and equity, as well as the prevailing level of poverty necessitates the use of various education delivery approaches to enable all citizens to benefit from this public good. The major objective of this paper is to document an discuss the initiatives that Tanzania has taken to expand educational opportunities at various levels using open and distance learning (ODL) approaches. The paper begins by explaining the socio-political context for ODL in Mainland Tanzania and Zanzibar and proceeds to recount the distance education initiatives that have been established over time using both the longstanding traditional technologies and new media and technology. It then analyzes the opportunities and challenges in these initiatives. It ends with the proposal of how to improve both access and the quality of education using emerging educational technologies.

Keywords: Tanzania, open learning, distance learning, access to education, quality assurance.

## INTRODUCTION

Tanzania is a huge country composed of the mainland with an area of 943,000 square kilometers, and Zanzibar, (the islands of Unguja and Pemba) at approximately 2,000 square kilometers. It has a total population of about 34 million comprising more than 120 ethnic groups with diverse cultures and notable income differentials. Financially, Tanzania is one of the poorest nations in Africa with a national GDP of US\$29.25 billion (2006<sup>1</sup>). It is a country in which 35% of the population is living beneath the official poverty level. As poverty increases, there are an increasing number of people who cannot access education especially tertiary and higher education.

The universalization of education and its worldwide acceptance as a continuous or lifelong undertaking, coupled with concerns about educational access and equity (Sangai, 2004), as well as the prevailing level of poverty, necessitate the use of various education delivery approaches to enable all citizens to benefit from this public good. The conventional system caters for the needs of full-time learners from a specific age group enrolled in recognized institutions of learning at various levels of the education system: primary, secondary and tertiary. The requirements of such a system, usually determined by the relevant school/university boards, largely excludes many people outside traditional school-going age groups, those who are unable to fulfill essential eligibility requirements, and those who need education and training to gain competence in jobs and upgrading of their qualifications and training (Sangai, 2004). In the conventional approach the learner has to be on-campus, to register as a full-time student and to attend face-to-face lectures

and seminars. Communication between the teacher and the student is direct; this facilitates immediate exchange of messages and the resolution of learning problems.

Distance education is an approach that takes education to the many learners who are separated, by time and space, from those who are teaching.. It is a mode that has a high potential for transcending barriers that are caused by distance, time, and age; thus facilitating lifelong learning. Through distance education the learner enjoys a high degree of autonomy in deciding what, when and how to learn. Today, distance education programmes are able to make full use of information and communication technology through the application of a wide range of media: print, audio-visual, CD-ROM, computers and the Internet.

Open learning is a much wider concept than distance education but it is much more difficult to implement. It encompasses all forms of education and training, and can take place within multiple modes. As such it can be conducted parallel to and/or integrated with formal/conventional education and training (Komba et al, 2006). The system can be defined as one in which the restrictions placed on students are under constant review and removed wherever possible. Openness is considered in relation to intake, participation, progression, completion and achievement. Barriers include the student's economic circumstances, socio-cultural factors, academic qualifications as well as teaching approaches.

The Tanzanian national ICT policy aims to use ICT to improve delivery of education and training in all areas including distance learning, as well as to enhance the quality of the learning experience itself. Other objectives are to expand and improve adult education, lifelong learning and literacy programmes, notably for retraining and re-skilling the work force. The policy also emphasizes the need to develop local content in order to change the current situation from Tanzanians being consumers of foreign ideas and values into the producers of locally relevant knowledge and information. The policy also aims to provide opportunities for Tanzanians to interact and communicate with each other (URT, 2003).

## SOCIO-POLITICAL CONTEXT FOR DISTANCE EDUCATION

Various official documents justify the need to give more attention to distance education as an alternative delivery mode. Such documents include the Poverty Reduction Strategy Paper (2000), the Tanzania Vision 2025, the Education Sector Development Programme (1998), the Teacher Education Master Plan (2000), Secondary Education Master Plan (2000), the Higher Education Sub-Master Plan 2003-2018, and the National ICT Policy (2003). The documents have the following complementary assumptions, that:

- education is an important tool for socio-economic development and a key factor in strengthening human capabilities and reducing poverty in an increasingly globalized world;
- there is need to improve and bolster education quality, access and affordability, equity and efficiency;
- there is a shortage of qualified and competent experts at various levels of the social and economic system;
- the existing arrangements for the production of experts are not adequate to address the shortage of qualified and competent teachers in teachers' colleges and secondary schools;
- there is a need to expand enrolment in higher education institutions through a combination of residential and distance education methods; and
- that use ICT as a tool to improve access and the quality of delivery of education and training at all levels.

The Tanzania Vision 2025 sees education as a strategic agent for mindset transformation and for the creation of a well-educated nation that can address the development challenges facing the nation. The Vision underlines the importance of continuing education and the use of ICT in education.

The Poverty Reduction Strategy Paper (2000) recognizes education as a key factor in strengthening human capabilities and reducing poverty. It stresses the need to bolster primary school enrolment and retention rates, to raise the quality and relevance of education and to improve access to basic education. The paper also calls for the development of a national strategy for basic school education that would ensure improved access, retention rates, performance and expanded adult education programmes. In pursuit of the objective, the government commits itself to provision of the necessary physical, human and financial resources.

The Education Sector Development Programme (ESDP), and the Secondary Education Master Plan (SEMP, 2000) also recognize the role of education in national development and emphasize on improvement of quality, access and affordability, equity and efficiency. Quality of education is considered in terms of improved performance in examinations, curriculum re-organization, language proficiency, teacher effectiveness, and provision of materials. Quality enhancement requires the improvement of teacher training, and upgrading the quality of teaching and learning. Key among the goals of SEMP are to:

- expand the transition rate from Primary to Secondary Education from 19.5 per cent in 2002 to 21 percent in 2003 and to 50 percent by 2005;
- increase the Net Enrolment Ratio (NER) of the 14-17 year olds from 7 per cent in 2002 to 50 per cent by 2010;
- improve the quality of Secondary Education, by raising the pass rate in Divisions I,II,III from 25 per cent in 2002 to 50 per cent in 2003;
- provide education equitably across regions and districts in accordance with the provisions of section 11 (3) of the Constitution of the United Republic of Tanzania (1977) which stipulates that: 'The government shall endeavor to ensure that there are adequate opportunities to all persons to enable them to acquire education and vocational training at all levels of schools and other institutions of learning' (URT 1998:19)

In the same vein, the Teacher Education Master Plan (TEMP) aims to strengthen the machinery for policy formulation, professional development, monitoring and evaluation of teacher training and learning. Specifically it presents a vision of steering teacher education in the next 25 years, and defines a mission for the professional development of teachers during the next five years. The Plan also presents a programme of action for ensuring that the professional development of teachers is ensured at all levels. It proposes mechanisms of ensuring that the teaching profession is equitably accessible to all members of the society, is well financed and managed and maintains acceptable quality and standards. The three critical objectives are to:

- improve pre-service teacher education programmes and expand and strengthen INSET programmes academically and professionally;
- enhance access and equity by improving gender balance in Teacher Education and expanding training opportunities for teachers of special education; and
- strengthen and improve the financial base for Teacher Education by mobilizing more resources for that level, improving cost effectiveness and financial management skills in Teachers' Colleges.

The National ICT Policy (2003) aims to transform Tanzania into a hub of ICT infrastructure and ICT solutions that enhance sustainable socio-economic development and accelerated poverty reduction both nationally and globally. The overall mission is: 'To enhance nationwide growth and social progress by encouraging beneficial ICT activities in all sectors through providing a conducive framework for investments in capacity building and in promoting multi-layered cooperation and knowledge sharing locally as well as globally'. The policy focuses on 10 major areas harnessing ICT in Tanzania including human capital, local content development, and universal access.

## DISTANCE EDUCATION INITIATIVES FROM INDEPENDENCE TO DATE

## Initiatives from Tanzania Mainland

The history of distance education in Tanzania goes back to the days of colonialism. After independence, in 1961, investment in its provision, like investment in the provision of many other social services, was the responsibility of the government in collaboration with development partners.

Recent global developments in Information Communication Technologies have, however, brought new players into the distance education sphere. Whereas between 1960s and 1980s there were only four major distance education providers, all of them financed by the government, the number of such providers has now gone up to seven, all of them enjoying some form of support from the government. The providers are: the Cooperative Education Center (Moshi Cooperative College), the Institute of Adult Education, the Southern African Extension Unit, The Open University of Tanzania, University of Dar es Salaam and the Tanzania Global Development Learning Center.

Data on student enrolment and/or completion could not be obtained for all the initiatives but partial data provides a sense of the status and potential of the ODL approach.

The oldest provider of distance education in Tanzania Mainland is the Cooperative Education Centre, which was established by the Cooperative Union of Tanganyika in 1964. With financial support from Nordic countries, the Center set out to educate members of the primary cooperatives on their duties, rights and responsibilities, as well as to equip their employees with the knowledge and skills needed to improve their performance (Mushi, 1999). The Centre became the Moshi Cooperative College, which, in turn, has now become the Moshi University College of Cooperative and Business Studies under the tutelage of the Sokoine University of Agriculture. Targeting members and employees of the vast cooperative movement in the country, it developed study programmes through distance learning that would lead to the attainment of professional qualifications in Accountancy, Management and Agro-business.

In 1984 the government of Tanzania and the Commonwealth Secretariat jointly set up the Southern African Extension Unit, following a decision by the Commonwealth Heads of Governments Meeting held in New Delhi the previous year. The main objective of the Unit was to provide education and training opportunities to exiled South African freedom fighters as well as other refugees from neighbouring countries of the Great Lakes region through distance education methods. The curriculum included English, Mathematics, History, Geography and Kiswahili. From 1996, following the advent of multiparty democracy in the country, the Unit started to offer programmes for local councillors to manage changes under the new political dispensations.

The Institute of Adult Education established in 1975 by an Act of Parliament is the single most popular institution to offer courses leading to the attainment of Ordinary and Advanced level secondary education certificates. Courses in Book Keeping, Auditing, Production Management

and Teacher Education are also offered. The Institute has traditionally depended on correspondence through the postal system as its main mode of delivery.

Programme	Male	Female	Total
Mass Education	53,676	6,468	60,144
Secondary Education	124,046	21,868	145,914
Professional Education	4,837	676	5,513
Total	182,559	29,012	211,571

Source: Institute of Adult Education records

Programme	Male	Female	Total
Mass Education	17,126	1,667	18,793
Secondary Education	21,665	1,422	23,087
Professional Education	1,272	30	1,302
Total	40,063	3,119	43,182

Source: Institute of Adult Education records

Tables 1 and 2 indicate two glaring issues. a gender imbalance and poor completion rates. One Over the years women have been underrepresented with female enrolment constituting only 13.7 percent of the total. This is contrary to a widely held belief that ODL is a model best suited for gender equality in education. Also striking is the low completion rate for students undertaking the various programmes of study, with the overall completion rate being only 20.4 per cent [higher for males, 21.9 percent, but very low for girls, 10.7 percent].

The Open University of Tanzania (OUT), which was established in 1992 under an Act of Parliament No. 17, is by far the major provider of higher distance education in Tanzania. The University is headquartered in Dar es Salaam but has 25 centres distributed all over the country. Currently, OUT offers distance education via print and audio. A computer network linking the regional centres is planned to complement delivery. Student support is provided through face-to-face sessions, study groups tutorials, guidance and counselling, including study skills advisory services for students with learning disabilities. Students are assessed by means of written assignments, timed tests and annual examinations.

The Open University of Tanzania boasts a total enrolment of over 25,000 students in various disciplines including education, law, science, commerce, economics and many others (OUT, 2006:ii). According to the Facts and Figures published in June 2006, the total number of undergraduate students admitted annually has increased from 1209 in the year 2001 to 2692 in 2005. The percentage of female students has also increased on average from 18.6 in 2001 to 26.6 percent in 2005. However, the corresponding data on graduation is not encouraging. (see Table 3).

Year/ Gender	2001		2002		2003		2004		2005	
	F	Т	F	Т	F	Т	F	т	F	Т
Admitted	225	1209	300	1340	390	1567	506	1940	689	2692
%	18.6	100	22.4	100	24.9	100	26.0	100	26.6	100
Graduated	34	121	47	163	73	307	126	460	263	782
%	28.1	100	28.8	100	23.4	100	27.4	100	33.6	100

Table 3: Admission and graduation statistics by gender 2001-2005

Source: OUT Facts and Figures 2006

Currently, the OUT has 50 students who are blind/partially sighted and print disabled. They are studying various programmes by using audiotapes or cassettes. The same study materials used by other students are marked-up or adapted in a way that enables print-disabled students to use them for learning. The adaptation, including tone indexing, addition of bleeps and graphics, is done at the studio recording booths or studios. In addition to support services provided to all students (i.e. study skills, advisory services, guidance and counselling), this unique group of learners is provided with initial training on how to use audio tape systems and how to navigate the pages. The counselling service is offered at the study centres of the OUT, at workplaces and student homes.

## **Distance Education Initiatives in Zanzibar**

In Zanzibar, the Distance Education Programme was started in 1994 by the establishment of the Distance Education Division under the Ministry of Education, Culture and Sports. The Programme was launched in 1996 on a pilot basis. The pilot phase involved 240 primary school teachers from both islands (Unguja and Pemba) who received their courses through five Teacher Centers (TCs) located in their residential areas. Presently, nine TCs have been constructed and are used as main centers for the provision of distance education programmes.

The program meme targets untrained primary school teachers most of whom are Form III or IV leavers. Programme. The curriculum is teacher-education based, designed by considering the curriculum in use, the existing primary school curriculum and the primary school teachers' needs. It is divided into two parts, A and B, consisting of seven subjects – science, social science, English, mathematics, educational studies, Kiswahili and religion (Islam). The program meme is delivered through printed material in the form of units and day-release face-to-face tutorial sessions. This program meme is similar to one that was established in Mainland Tanzania in the late 1970's under the Universal Primary Education (UPE) programme.

In addition to the above initiatives Tanzanians enroll in foreign-based institutions like British Tutorial College, Rapid Results College, Cambridge International College, and UNISA. These are seen as alternative routes for individuals who wish to further their education for personal as well as social returns.

## NEW INITIATIVES TOWARDS TECHNOLOGY-MEDIATED DISTANCE EDUCATION

The University of Dar es Salaam, (www.udsm.ac.tz), established under the UDSM Act in 1970, offers diploma, postgraduate diploma and degree programmes through technology-mediated and blended teaching-learning approaches. This is facilitated by a good ICT infrastructure at the main campus and the use of BlackBoard and WebCT platforms. In 1998, the University of Dar es Salaam (UDSM) started to implement the Technology Enhanced Independent Learning Environment (TEIL) project. The objective of this project was to develop and implement a virtual campus providing a rich collaborative, learner–centered online environment for ICT-mediated distance education as a way of increasing student enrolment at UDSM and increasing access to higher education in the country.

In order to build institutional capacity for e-learning at the University of Dar es Salaam, an Instructional Technology Resource Unit (ITRU) <u>www.itru.udsm.ac.tz</u> was created in 2002 to spearhead the process. The unit conducts instructional design workshops targeting academic staff and students. The main objectives of the workshops are to:

- encourage academic staff to enable independent learning among the students;
- sensitize academics about alternatives methods of delivering courses;
- introduce them to flexible methodologies and course design structures that recognize the needs of varied learners;
- facilitate the design of electronic online materials for student access;
- sensitize the staff on their changing roles from providers of knowledge to that of facilitators, and finally;
- improve student evaluation of their own learning.

It is envisaged that academic staff will apply the principles and skills acquired in the workshops to design online courses and will register students to take the courses on an experimental basis.

These initiatives have now been formalized through the establishment of coordinating units such as the Centre for Virtual Learning (CVL) incorporating the original functions of the existing African Virtual University Learning Centre (AVU-LC) and the Instructional Technology Resource Unit (ITRU). The CVL operates under the newly established Faculty of Informatics and Virtual Education (FIVE).

Tele-centres have been established in Dar es Salaam and other major towns (Arusha, Dodoma Mwanza and Mbeya) for supporting future off-campus students. At present courses offered via ICT-mediated delivery lead to the diploma and degree in computer science, business education, and post-graduate diploma in education.

The University of Dar es Salaam has also been collaborating with the African Virtual University (AVU), a World Bank project which aims at helping to facilitate education in African universities and support economic development. AVU targets Anglophone, Francophone and Lusophone universities in Tanzania, Kenya, Uganda, Ghana, Mozambique, Namibia, Ethiopia, Nigeria, Rwanda, South Africa and Zimbabwe. UDSM was a lead partner university in offering computer science and business studies diploma and degree programmes offered by the Royal Melbourne Institute of Technology (RMIT) in Australia. Enrolment data available at the University of Dar es Salaam AVU-Learning Center is presented in Tables 4 and 5.

Gender	Selected		Enrolled		Graduated	
	Applicants		Students		Students	
	Diploma	Degree	Diploma	Degree	Diploma	Degree
Male	41	19	29	12	24	14
Female	15	5	11	3	11	3
Total	56	34	40	15	35	17*

\*Some successful diploma students joined the degree programme

## Table 5: AVU/RMIT Computer Science 2004 Intake

Gender	Selected Applicants		Enrolled Students	
	Diploma	Degree	Diploma	Degree
Male	56	19	31	7
Female	20	6	18	4
Total	76	25	49	11

The Diploma of Business is a one-year programme offered in collaboration with AVU and Curtin University in Australia withstudents from Sub Saharan Africa countries. The programmes build internal capability and expertise in ICT-enhanced programme delivery and apply the integration of satellite, Internet multimedia, live video broadcast, online tutorials and face-to-face tutorials combined with print materials and a digital library.

Gender	Selected		Enrolled	
	Applicants		Students	
	Diploma	Degree	Degree	Diploma
Male	9	17	10	8
Female	4	7	6	2
Total	13	24	16	10

The low enrolment in all the AVU programmes conducted at the University of Dar es Salaam Learning Center is largely as a result of the tuition fees charged. A total of US \$ 1100 was charged per programme per annum. No wonder a good number of qualified candidates failed to raise that amount, leading to very small class size in both the diploma and degree programmes.

Individual academic units at the University of Dar es Salaam undertook similar initiatives towards international partnerships.

A concrete example of using asynchronous networks for enhancing higher education delivery in the East African region is the Co-Curriculum Development (CCD) project which started in 2002. The project brought together three universities, namely the University of Dar es Salaam, (Tanzania), University of Makerere (Uganda), and Tufts University (United States). A Political

Science programme (Regional Integration) was jointly offered, covering theories and concepts about regional integration. During the course the students put to the test the concepts and theories through a critical examination of the practice of regional integration in Europe, Africa, Latin America, North America and Asia. The activities involved weekly discussions, class assignments, reading and reviewing of documents, email correspondence among students across the digital divide. The organizers and participants have evaluated the programme positively.

The unit of Microbiology within the Department of Botany initiated an e-learning course called 'Teaching modern biotechnology through an international collaborative Blackboard supported parallel course'. This undergraduate course, which focuses on applied aspects of recombinant DNA technology, has been offered in partnership with the University of Hamline, USA, since 2003. The methodology of the course involved practical application of recombinant DNA techniques, using of Blackboard for science learning and international collaborative research. It is hoped that this technology- based approach to science teaching and learning will help address the declining interest in science subjects.

The Tanzania Global Development Learning Centre, offers ICT-based distance learning courses, using videoconferencing, internet, interactive web communications, video, face-to-face tutorials, CD-ROMS and print. The courses aim to build capacity for social and economic development. The programmes are in the form of short courses and seminars, tailored to meet the needs of a wide range of participants with diverse backgrounds, concentrating on global dialogues about common international agendas.

#### FINANCING AND SUSTAINABILITY OF DISTANCE EDUCATION IN TANZANIA

The sustainability of distance education programmes and institutions has mainly been the responsibility of the government and development partners. The major partners are listed below.

- The Swedish International Development Agency (SIDA), supports the Cooperative College, the Institute of Adult Education (between 1970-1980), University of Dar es Salaam and The Open University Tanzania.
- The Danish International Development Agency (DANIDA), which supported the Distance Education programme in Zanzibar by funding most of the initial preparations like setting up and furnishing the office, training of and contracting course writers and editors. The Zanzibar Revolutionary Government of Zanzibar through the Ministry of Education, Culture and Sports is now fully responsible for the smooth running of the programme.
- The Commonwealth Fund for Technical Cooperation (CFTC), who funded the Southern African Extension Unit (SAEU) between 1984 and 1992.
- Carnegie Corporation of New York who support the IT project at the University of Dar es Salaam
- The World Bank supports the Tanzania Global Development Learning Centre (TGDLC), and established the Africa Virtual University at The Open University of Tanzania.
- The David Anderson Africa Trust (DAAT) supports The Open University of Tanzania audio technology recording studio for students with learning disabilities, and women students.
- The Commonwealth of Learning (COL) which financed the training of course writers for the Open University of Tanzania.

## A CRITIQUE

A SWOT analysis of the status and development of distance education in Tanzania indicates that there are several opportunities and challenges to be considered. One it is important to remember that that distance education is not a new idea.

It has a fairly long history in the country and has been accepted as an alternative mode of acquiring new knowledge and skills necessary for survival in the economic, social and political system. Secondly, Tanzania has developed some capacity in offering relevant programmes from certificate, diploma, and undergraduate to postgraduate levels and been able to use locally developed materials for its programmes using local experts. Thirdly, where external expertise was required, links and networks were established with a view to building local capacity to develop and manage distance education programmes. For example, The Open University of Tanzania initially benefited from the links established with the University of Nairobi in Kenva. University of Abuja in Nigeria, Indira Gandhi University of India and The Open University of the United Kingdom. Similarly, the University of Dar es Salaam established a partnership with the AVU and Royal Melbourne Institute of Technology to conduct diploma and degree programmes through elearning. Fourthly, the well-distributed postal system has been effective (despite some delays) in delivering the print materials to distant learners. Fifthly, existing regulatory frameworks provide for private sector involvement in the provision of education, including distance education at all levels. Tanzania has now a national ICT policy, which provides a framework for the use of modern technology to deliver ICT-mediated distance education in the country.

However, the major challenge Tanzania faces is lack an explicit national policy on distance education. The lack of an overall policy and the poor harmonization of initiatives, have led to the random adoption of different systems and standards, unnecessary duplication of effort, and waste of scarce resources, especially through the loss of potential synergies. The infrastructure is poorly developed for modern distance education based on the Internet and the computer. The cost of establishing the necessary infrastructure is prohibitive, and yet institutions are almost working in isolation to develop the infrastructure for modern distance education. Also, there is a lack of a teamwork approach to the development of materials for distance education. The use of part-time tutors affects the efficiency of The Open University system, because such tutors usually are employees of other institutions, and owe allegiance to the principal employer first and foremost. Local capacity is not adequately developed for course design and multimedia applications. There is also a shortage of appropriately skilled technical support staff to handle technical problems that may affect learning. Finally, the sustainability of distance education programmes is at stake because of heavy reliance on government and donor funding.

There are opportunities for distance education in Tanzania, as there are opportunities in other countries, too. The demand for flexible continuing education is growing, as working people require updating and upgrading of their knowledge and skills required in the global economy. The fact that distance education is highly subsidized by the government provides a good opportunity for people who could not otherwise acquire the education they long for; this applies particularly to women and other marginalized groups. In addition, the emergence of modern ICTs such as mobile phones, computers and Internet services provide a good opportunity for transforming and improving the efficiency of conventional modes of distance education delivery. To that effect, the Tanzania government provides tax exemptions on all imported education, ICT materials and related equipment.

The fast development of technology-mediated distance education poses a major challenge in the control and security of such programmes world wide, including Tanzania. Problems include piracy, the security of examinations, the authenticity of awards, quality assurance, and the accreditation of institutions offering the programmes.

Tanzania is in the process of putting in place a mechanism to address some of the threats outlined above but the pace of development of technology is overwhelming (TCU, 2006). The immediate challenge is how the government of Tanzania (in collaboration with other stakeholders) can control and monitor the quality of ODL programmes, particularly e-qualifications.

#### EMERGING ISSUES AND AGENDA FOR FUTURE PRACTICE

#### How can the quality of ODL programmes be ensured?

The student enrolment and completion data obtained for this paper raises serious questions in relation to equity, quality and the sustainability of ODL programmes in Tanzania. Contrary to the widely held belief that ODL provides flexibility for learning and therefore women will take advantage of it, evidence from this paper does not support this claim. Female participation in education does not seem to have increased in the programmes offered at the Institute of Adult Education, The Open University of Tanzania or University of Dar es Salaam. There is a need to investigate further why this is the case.

The student completion rate is another cause for concern. As shown from the data from Institute of Adult Education the overall completion rate is only 20.4 per cent. A similar trend can be observed at the Open University of Tanzania. The third issue is affordability of the programmes delivered using ICTs. The low student enrolment observed in the AVU/RMIT computer science programmes offered at UDSM illustrates how the ability to pay becomes a barrier limiting access to education.

These findings may suggest a lack of internal efficiency of the institutions and agencies providing the ODL programmes. However, the question about quality of ODL programmes needs to be asked and tackled at a broader, international level, and it is interesting to note that OECD and UNESCO have already started asking these questions (OECD/UNESCO, 2004). They note that the questions include the following: How can ODL institutions, quality assurance and accreditation agencies, qualification recognition and credential evaluation agencies, advisory and information centers, professional bodies as well as governments arrive at policies that protect learners from becoming victims of misinformation, and low quality provision by rogue providers, bogus institutions, diploma mills and qualifications of limited validity? How can we ensure transferability of credits between institutions within and among countries? How can international validity and portability of qualifications earned through ODL programmes be ensured? How can we ensure the transparency, coherence, and fairness of procedures used for recognition of qualifications earned through ODL programmes? How can national quality assurance and accreditation agencies be established and empowered to intensify their international cooperation in order to increase their mutual understanding?

These questions require interventions, coordination and collaboration among stakeholders at national and international levels. The desire to attain equal access to quality education is a uniting factor among African member states (SADC,n.d.). Cooperation in the establishment of national and regional networks of ODL learning centres will go a long way towards closer integration. Also, joint ventures in the design, production and dissemination of distance learning materials will help reduce the cost of education and training by maximizing the economies of scale offered by the ODL approach. Therefore, member states of the Southern Africa Development Community (SADC) or of the East African Community (EAC) will do well to encourage and support the creation of regional professional associations in distance education and the exchange of

personnel through which the institutions can share ideas, views and experiences so as to enhance the quality and relevance of their programmes.

#### The way forward

The ODL institutions in Africa need to build upon existing quality assurance mechanisms in order to ensure the quality of ODL programmes and they need to establish network with institutions with similar interests. As a starting point, it is recommended that ODL providers in Africa should review the way in which they describe programmes and qualifications in order to ensure that the descriptions give an accurate account of the learning outcomes and competencies obtained. This should be the spirit in which curriculum review and modularization of courses are undertaken. Academic units should use more outcome-oriented and competency-based assessment techniques and move away from the conventional input–and process model in order to adapt to e-learning and other new forms of delivery as well as to increase the comparability of the quality of the products across institutions nationally and internationally.

As education institutions in Africa start offering e-learning programmes nationally and across borders, it is important to establish links with trustworthy quality assurance and accreditation agencies for the programmes so that such programmes are recognized as being trustworthy and educationally valuable.

#### ENDNOTE

<sup>1</sup> https://www.cia.gov/cia/publications/factbook/geos/tz.html

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