

Open Schooling Programme: the Answer to Education Access and Quality in Uganda

Robert Agwot Komakech

*Faculty of Social Sciences and
Management Studies, Kumi
University, P.O BOX 178,
Kumi, Uganda (East Africa)*

Abstract

Education is the yardstick for every country's political and socio-economic development; which acts as a basis of reducing poverty and inequality by enabling the use of new technologies, creating and spreading knowledge. Despite the large inflows of donor financing and the Government of Uganda through the Ministry of Education and Sports; the sector for the last 29 years is still grappling to balance the increasing access with quality education in secondary schools. Therefore, the main objective of this article is to explore the new strategies the Ministry of Education and Sports can employ to increase access while improving the quality education in the country. The article is based on literature review and the author's experience in education. The article examines the advantages of open schooling and reveals that the programme provides the fast-track options for retaining students; bringing dropouts and over-aged learners to school; reducing administrative costs and enabling young people to be effective in life. Furthermore, the researcher discusses the likely challenges of the programme and gives practical working solutions aimed at overcoming the challenges of implementing the programme in Uganda.

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Corresponding Author:

Robert Agwot Komakech

Background to the Study

Between 1970 and 2000, the number of secondary schools in Uganda increased from 73 to 1,892, and enrolment increased from about 50,000 to 518,931, a more than tenfold increase. The total number of secondary schools and enrolment was relatively flat during the 1970s, rising in the early 1980s, and then levelling out again until the mid-1990s. The pronounced growth in the number of institutions resumed in 1998 (World Bank, 2002; MoES, 2000).

Following the success of the Universal Primary Education (UPE) policy, the Government of Uganda introduced the free Universal Secondary Education (USE) policy in 2007. Since the introduction of USE, the programme saw the drastic increase in student enrolment (S1-S6) figures from 814,087 students in 2006 to 954,328, an increase of over 17.2%; leading to increase in the transition rate from P7 to S1 by 22% from 46.9% to 68.6% (Ministry of Education and Sport, 2008). From 2007, the trend of enrolment has been steadily increasing with figures of 1,088,744, 1,194,454 and 1,225,692 for the years 2008, 2009 and 2010 respectively. The secondary subsector has also experienced steady improvement in schools response especially in privately-run schools, with the total number of schools increasing from 2,908, 3,149 and to 3,234 in the years 2008, 2009 and 2010 respectively (Ministry of Education and Sport, 2010).

By 2014, the total number of secondary schools had increased from 2,793 (1,008 government; 1,785 private) in 2013 to 2,836 in 2014 (1,016 government; 1,820 private) in 2014; while the number of secondary schools, both government and private, implementing the USE programme had also increased from 1,819 (944 government and 875 private) in 2013 to 1,822 (945 government; 877 private) in 2014 with student enrolment of 1,374,546 (709,140 boys and 665,406 girls) as compared to 1,362,739 (727,212 boys; 635,527 girls) in 2013, showing an increase of 1% between 2013 and 2014. At a sub-regional level, the Karamoja sub-region registered the highest percentage increase of enrolment in secondary school of 17.7% followed by Bunyoro with an increase of 11.9%, Elgon and Bukedi sub-regions with 11.9% and 11.6% respectively. Toro with 8.5%, West Nile with 5.6%, Kigezi 4.7%, Teso 3.8%, Ankole 2.6%, Acholi with 1.1% and Busoga 0.1% in FY2013/14. Buganda and Lango registered a drop in enrolment of 8.6% and 0.8% respectively. In addition, the number of classrooms in secondary schools also increased by 8% from 28,242 in 2013 to 30,459 in 2014 (MoES: EMIS, 2014).

While the world average for secondary school enrolment is 66%, the Gross Enrolment Rate (GER) in Sub-Saharan Africa (SSA) is 34%; as compared to Uganda where the proportion of students attending secondary school compared to the number of 13-18 year olds in the entire population has just doubled from 13% in 2000 to 28.1% (29.1% boys; 27.1% girls) in 2014. Despite the double increase, Uganda is still placed among the bottom 10 countries worldwide for gross enrolment in secondary education (Bitamazire, 2005; UNESCO, 2010; MoES: EMIS, 2014). Rumble and Koul (2007) emphasized that even if one new secondary school were to be built every month for the next ten years, the increased demand will not be met, thus Open Schooling (OS) is the best answer to access. In practice, countries implementing OS programmes have better access and high enrolment in secondary schools compared to the non-practicing countries. For instance, the widespread expansion

of this education level in all regions of the world between 1999 and 2009 increased the Gross Enrolment Ratio (GER) for lower secondary education from 72% to 80% globally. The most notable increase occurred in sub-Saharan Africa, where the GER for lower secondary education rose from 28% to 43%. With only OS implementing countries (South Africa, Botswana, Seychelles, Mauritius and Namibia) in the sub-Saharan countries having ratios above 70% as compared to Uganda with 28% (Esi Sutherland-Addy, 2012; UNESCO, 2011). Therefore, although Uganda has experienced remarkable achievements in secondary education, the increasing demand for secondary education will hardly be met by traditional face-to-face delivery alone. Other approaches, such as Open Schooling and online learning, will have to be utilized, especially in areas with poor access and low performance (low quality education) to make it easier for rural poor children, and dropouts to have viable opportunities to learn.

Problem Statement

The demand for secondary education is rising faster than for primary education in Africa than in any other region in the world. Expanded secondary education requires development expenditure to construct additional classrooms, laboratories and workshops and new schools, provide furniture, equipment and learning materials, and provide supporting infrastructure. At the same time, rapid increases in student numbers are forcing countries towards emergency solutions (Verspoor & Bregman, 2012). In Mozambique, for example, secondary schools are taking over the buildings of primary schools, which are then force into open-air classes or multiple shift arrangements. Double or triple shifting is increasingly common in many countries including, for example, Senegal, Guinea and Mozambique (Verspoor & Bregman, 2012). Schooling of acceptable quality should be accessible equitably to all that qualify. But poor parents often cannot afford the direct and indirect cost of secondary education. In addition, distance and socio-cultural traditions make rural parents reluctant to enrol their children, especially their daughters, in secondary schools located so far away that boarding is inevitable. Strategies that effectively address these inequities will have to be multi-faceted. They will need to include actions to enhance the overall effectiveness of secondary schooling of which disadvantaged students usually benefit disproportionately; interventions that target specifically the institutional and educational obstacles faced by specific groups of students, most importantly girls; and measures which eliminate financial barriers. It is against this background that, this exploratory study examined the advantages of the open schooling programme, the likely challenges of the programme, and established the practical working solutions aimed at overcoming the challenges of the programme implementation in Uganda.

Research Methodology

The article is of exploratory nature and involves a conceptual analytical approach. Conceptual analysis is a technique that treats concepts as classes of objects, events, properties or relationships (Funer, 2004). The technique involves defining the meaning of a given concept precisely by identifying and specifying the conditions under which any entity or phenomenon is or could be classified under the concept in question. Conceptual analysis is used in order to get a better understanding of Open Schooling in the countries

implementing the programme. Therefore, this study is based on the reviewed relevant literature source on the open schooling programme. In addition, pertinent Open Schooling (OS) and Open and Distance Learning (ODL) documents from the United Nations Educational, Cultural and Scientific Organization (UNESCO), World Bank (WB), and Organization for Economic Cooperation and Development (OECD) website, specific reports for countries such as India, Zimbabwe, Botswana, Namibia, Mauritius, Seychelles, and South Africa, as well as research journals and conference proceedings relating to Open Schooling were reviewed and analyzed.

Results of the Study

This section presents theoretical results of the findings.

Concept of Open Schooling

Since many children in developing countries do not receive regular school education, Open Schooling (OS) began as a way to provide education to children who were without access to schools, and the rationale for its provision has depended on the times and the context. In both Australia and Canada, parental concerns of those living in isolated and remote rural areas who could not afford to hire a personal tutor or send their children to boarding schools led to the development of government correspondence programmes. In both countries, this model of school provision spread rapidly as new settlements in sparsely populated areas outpaced the capacity of the local governments to provide schools. In 1979 an Open School was established in India, as a project of the Central Board of Secondary Education, Delhi. It was upgraded in 1989 and became the National Institute of Open Schooling (NIOS) which is an autonomous institution. Open schools have now been established and have developed rapidly in many countries to cater for primary and secondary students. Some of them have very high enrolments -- for example, the National Institute of Open Schooling of India had a cumulative enrolment of 354,811 between 1992 and 1997; while in 2010 NIOS had cumulative enrolment of 1.5 million students with more than 300,000 enrolling every year (Gaba, 1997; Mitra, 2009).

Zimbabwe has a wide range of open learning schemes. One example is the study group scheme in which groups of students (15 in rural areas and 20 in urban areas) meet for the purpose of studying courses leading to junior secondary, "O" and "A" level certificates. The study group scheme has been in existence for about 25 years and has recorded a cumulative student enrolment of 81,114 (46,243 males and 34,871 females) between 1994 and 1997, an average enrolment of 20,000 students per year (Mafunga, 1998); and the scheme has widened access to basic education especially for girls. Furthermore, Commonwealth of Learning (2010) highlights that in 2009, 28,942 out-of-school youths and adults (10,033 males and 18,862 females) enrolled in Namibian College of Open Learning (NAMCOL) programmes, and 42 of these learners enrolled in more than one programme. In the same year, an estimated 25,736 out-of-school youths and adults (8,919 males and 16,817 females) accessed Botswana College of Distance and Open Learning (BOCODOL) programmes. Many other countries within the Sub-Saharan Africa (Namibia, Mauritius, Seychelles, and South Africa, among others) have also introduced different forms of Open Schooling to broaden access and quality education in secondary schools.

Definitions of Open Schooling

Open schooling is a flexible education system that allows learners to learn where and when they want, physically away from a school and a teacher. It uses several teaching methods to support learning, and has no age restrictions, content of courses to be taken or number of courses in which students must enrol. Abrioux (2009), cited in Phillips (2006), defines open schooling as “the physical separation of the school level learner from the teacher, and the use of unconventional teaching methodologies, and Information and Communication Technologies (ICTs) to bridge the separation and provide the education and training.

According to COL, "Open Schooling is not called open/distance schooling for a reason; that is Open Schooling may follow different patterns, but the most common scenario is that the learners study specifically designed open learning materials on their own at home, in their workplace, wherever it is convenient for them and then they meet together with a facilitator on a regular basis. The "open" in Open Schooling refers to the openness of the system, for example: youth that missed out on schooling in their childhood can enrol in courses which will provide them with the equivalence of secondary education without embarrassment of being in classrooms with children much younger than themselves; young mothers can take secondary-level education through studying at home, and attending tutorials only when necessary and their responsibilities permit; working adults can enrol in one or two courses at a time, and study whenever their personal and work commitments permit; and young adults can acquire skill training coupled with academic subjects while self-employed or working as non-skilled labour. Furthermore, COL uses the term “Open Schooling” rather than “Open and Distance Learning” because openness and flexibility are more important features than physical separation. As one of COL's publications expresses it, “Usually there are no rules dictating student ages, prerequisites, content of courses or numbers of courses in which learners must enrol. As a result, open schooling meets the needs of a broad range of learners” (Commonwealth of Learning, 2008). It is also important to note that the face-to-face sessions with the facilitator are mainly to clarify any difficulties that the students may have experienced when working through the learning materials. These sessions are seldom mandatory. It does not affect a student if he or she has to "drop out" for a period of time since they can pick up their studies once again, when it is convenient for them to do so.

The Principles of Open Schooling

There is little doubt that OS can assist in dramatically improving access both by school-age children and by adults to high quality secondary schooling, just as Open and Distance Learning (ODL) has already done at the tertiary level for secondary school leavers and adults. By the start of this millennium (and in contrast to the situation in primary education), there were sufficient examples of successful secondary OS both in the developing and the developed world. The key principles of Open Schooling as suggested by Abrioux (2009) include the following:

Lifelong learning: Learning is a lifelong process and should directly relate to the life experiences of the individual. For this to happen, the individual has to appreciate the relevance of what is learned and the motivation to learn is intrinsic.

Flexible learning: Learners choose what they want to learn, how they want to learn and when they want to learn. The central pedagogical elements of open learning allow for individual differences and individual learning styles and learning preferences, unlike formal systems of learning.

Learner support: Learners should be provided with adequate support to help them achieve academic success. Whilst studying is a personalized experience, support structures and systems should be in place for learners to fall back on whenever they experience difficulties.

Cost-effectiveness: Open schooling systems should be cost-effective but should not compromise on the quality of the education they provides.

Open schooling observes the ideals of learner-centredness, lifelong learning, flexibility of learning provision, removal of barriers to access learning, recognition of prior learning, provision of sound learner support, construction of learning programmes in the expectation that learners can succeed, and maintenance of rigorous quality assurance over the design of learning materials and support systems (Abrioux, 2009). These principles give the distinction between Open Schooling and Distance Education although there is overlap between the two terms. In simple terms, Distance Education refers to a set of practices to plan and implement educational activities where there is a separation between teaching and learning. This separation may result from distance, time, or other barriers. Distance education offers a way to overcome this separation, chiefly through its learning materials, the use of information and communication technologies to provide tutoring, linking learners to the system and each other, and the use of feedback and student support systems. The technologies used in distance education systems include mail, face-to-face sessions, radio, television, audio and videocassettes, compact disks, email and other computer connections, and teleconferencing systems (Murphy, Anzalone, Bosch & Moulton, 2002). The relationship between Open Schooling and Open Distance Learning are: the students and the teachers are physically separated; the learning is intentional and well-planned; the study pattern is flexible and student controlled; and unconventional teaching methods, Information, and Communication Technology (ICT) are used for correspondence.

The Advantages of Open Schooling In Uganda Education

An OECD (2006) report is clear about the benefits of educational attainment. The report states that:

A well educated and well-trained population is important for the social and economic well being of countries and individuals. Education plays a key role in providing individuals with the knowledge, skills and competencies to participate effectively in society and the economy. Education also contributes to an expansion of scientific and cultural knowledge. The level of educational attainment of the population is a commonly used proxy for the stock of “human capital” that uses the skills available in the population.

In addition, UNESCO (1996) in its report aimed to provide a frame of reference to cope with the challenges and demands of the new millennium. It proposed the following four pillars of education, as essentials for all, whether young or old, to function effectively in the new millennium. These are: Learning to Do or becoming competent; Learning to Learn or remaining a life-long learner; Learning to live with Others or learning to relate; and Learning to Be or live by a set of principles or be a person of character. The advantages for adoption of Open Schooling include the following:

Reduce Costs of Education

Open Schooling is more cost-efficient than traditional face-to-face education (Rumble, 1997; Butcher & Roberts, 2004; Du Vivier, 2007). It is also cost-effective in a sense that there is no need for the students to frequently travel; offers opportunities for maximum number of learners with no need for many buildings; and provides economies of scale at the early stages of programme expansion, as fixed costs are spread across more and more students. In 2007, Commonwealth of Learning sponsored a study entitled, "Open Schooling for Secondary and Higher Secondary Education: Costs and Effectiveness in India and Namibia", and a study conducted by Rumble and Koul (2007) revealed that: between 2002 and 2006, costs per student at NIOS were on average 12.43 times lower than those of the two conventional secondary school systems to which they were compared. The authors concluded that, "given the cost of setting up conventional schools, open schooling may be the only way of meeting the tidal wave of youngsters demanding secondary education".

Increase Access and Students Enrollment

Open Schooling can meet the needs of remote communities, those whose jobs prevent them from attending regular classes, or those who are tied to the home. According to UNESCO, EFA Global Monitoring report says, "Open schools are urgently needed to provide access to education for millions of children who currently have no access to any formal schooling. While the world average for secondary school enrolment is 66%, the Gross Enrolment Rate (GER) in Sub-Saharan Africa (SSA) is 34%." Rumble and Koul (2007) emphasized that even if one new secondary school were to be built every month for the next ten years, the increased demand will not be met, thus OS is the best answer to access. In practice, countries implementing OS programmes have better access and high enrolment in secondary schools compared to the non-practicing countries. For instance, the widespread expansion of this education level in all regions of the world between 1999 and 2009 increased the Gross Enrolment Ratio (GER) for lower secondary education from 72% to 80% globally (Esi Sutherland-Addy, 2012). The most notable increase occurred in Sub-Saharan Africa, where the GER for lower secondary education rose from 28% to 43%. With only OS implementing countries (South Africa, Botswana, Seychelles, Mauritius and Namibia) in the Sub-Saharan countries having ratios above 70% as compared to Uganda with 28% (Esi Sutherland-Addy, 2012; UNESCO, 2011).

Improve on Quality Education

The system is efficient in delivering high-quality education to large numbers of students, and in providing students with a breadth and depth of choice in what and how they achieve their high school certificate. According to NIOS (2013), Open Schooling provides

quality education for all due to its flexibility in place and pace of learning, flexible curriculum, self learning material, media and ICT support, Personal Contact Programme (PCP), recognizing and accommodating learners' preferred learning objectives and need for student support services that will maximize the individual's chances of success. Mhlanga, (2009) adds that due to the openness of entry, care is taken to provide sufficient academic support to academically challenged learners as identified upon enrolment. This may be through the provision of bridging courses, or more face-to-face support, or additional units or learner guides within existing courses, or more time to complete the programme.

Flexibility in Studying and Examination

The programme is flexible when issues of time and place are taken into consideration. Every student has the luxury of choosing the place and time that suits him/her. In addition, OS does not only provide flexibility in studying, but it also offers flexibility for examination, for instance, National Institute of Open Schooling offers open examination pattern, called On Demand examination. Students can appear at one of the regional centres for the examinations when they feel ready and comfortable. The examination system is based on the random question method. A huge question bank of related subject questions is stored in a computer. A computer randomly generates a question based on the blueprint stored in the computer, resulting in same difficulty level question paper for all the students. On demand examination pattern offers many advantages such as making the examination less stressful to students, minimizing anxiety, offering time and location convenience and by providing uniqueness in each examination paper (On-Demand Examination System, 2012).

Solve the Problem of Teachers' Shortages and Turnover

Open School Programme will engage all stakeholders such as parents, learners and teachers and the role of teachers will change to a mixture of facilitator or moderator. This will enable creative thinking, competence and skill development, as well as creation of new knowledge in the classroom, and transforming the school into a truly creative learning environment. As a result, the system will address shortage of teachers since students/learners will develop a sense of independent learning. It also provides opportunities for parents to be more involved in the learning process of their children; at the same time, parents might even enrol for the courses themselves.

Policy Implications

Lewin (2008) has shown that many developing countries will never achieve Universal Secondary Education by conventional schooling alone because that model is too expensive. In the OECD countries the unit costs of secondary education are generally less than double those at primary, but in most of Africa ratios range from 1:3 to 1:5 or even higher. In Uganda, for instance, the government pays Ush. 8,100 per annum for every child enrolled in primary four to seven in UPE schools while Ush. 123,000 is paid annually for each student under the USE programme in government-aided schools. This implies that the cost per child in secondary school is 15.2 times more than in primary school. To confront this challenge so as to improve access and quality secondary education, there is

need to reshape how schools are organized, by whom they are governed, where they are located, and how they operate in order to make it easier for rural poor children and dropouts to have viable opportunities to learn. Therefore, in order to have a very successful Open Schooling in the country, the following need to be done:

Involve Development Partners in the Programme

Participation of non-state actors should be encouraged. This can be achieved through promoting Public Private Partnerships and the involvement of international donors in development issues. This will enable the state to tap into the resources of such partners. However, experience shows that projects that depend too heavily on foreign aid often collapse when the funding ends because alternative domestic resources are not available to assume the burden (World Bank, 1998). Therefore, educational planners should keep in mind that alternative models for secondary education should only be undertaken when governments can commit the necessary resources to run them properly (Dodds & Mayo, 1992).

Continuous Monitoring and Evaluation

Resources have to be accounted for and the progress of projects has to be monitored continuously to ensure compliance with the agreed objectives. Monitoring and evaluation should not be treated as an after-thought, but as part and parcel of the programme. In this, the media has a pivotal platform for monitoring and explaining the crisis in the programme while harnessing the power of technology to make education a global priority. Media outlets should track governments' progress, highlight effective initiatives, share stories that inspire commitment and follow policy debates. With the help of communities, the media can also make excluded voices more audible. Media can help bring all partners to account by making visible areas in which they are falling short.

Using Open Schooling for Political Expediency

The earliest government programmes such as UPE and USE were implemented in the expedient way without key stakeholder involvement which has made the Ministry of Education and Sport fail to balance the enrolment with quality across all levels of education in the country. Thus, to enable sustained development of this sub-sector, a considered policy for OS is highly desirable. Good policy ensures that the OS sub-sector is less vulnerable to changes in government and funding priorities. In addition, a well-articulated policy will create a broad consensus on the most appropriate direction for the future development of OS; contribute to the formulation of minimum standards of service delivery and ensure that OS programmes adhere to these; facilitate the planning of joint initiatives that maximize the value obtained for the limited funding available from the state; and increase public awareness of opportunities to study through Open Schooling. Furthermore, detailed policy documents can provide a basis for mobilizing resources from donors and the private sector to pursue agreed priorities; adjudicating between competing interests; and denying requests to fund unplanned or ad hoc developments.

Proper Planning

Since Open Schooling can play a major role in providing access and quality to education; it is important that policy-makers include OS in their core planning for education. However, the status of the programme should be clearly defined in the national policy while ensuring that funding is provided from government through a well-designed funding formula. In addition, policy-makers must ensure that an enabling policy is in place before starting an Open School programme.

Developing ICT Infrastructure

The successful inclusion of ICT in OS requires having a basic secure infrastructure. Therefore, since ICT policy issues are complex, they should not be developed in isolation from larger government reform initiatives in sectors besides education. At the same time, ICT policy development in OS must be coherent within the education sector so that the underlying infrastructure is scalable and flexible. Policy development must occur at several levels: at the national education level, within the secondary sector, and specifically as it relates to OS initiatives. Policy regulation must be monitored so that these links can be maintained.

Employment Terms should be based on Performance Contract

The government through the Ministry of Education and Sports needs to employ teachers/ facilitators/ tutors on a part-time or contract basis for the OS programme. This will promote commitment to the programme and will lead to quality education. Furthermore, before the renewal on the contract the performance of individual(s) should be measured, for instance, using Results Based Management (RBM) where individuals' performance is linked to the performance of government departments and ministries.

Government Commitment

Total government commitment is very crucial for the success of OS programme. The commitment like in the previous education programmes (Universal Primary Education and Universal Secondary Education) will encourage the public to embrace the initiative. These will clear the suspicion from intended beneficiaries that OS programme is a "Second Class", an afterthought education system to appease people who have in fact been denied the right to equal education. According to Du Vivier and Ellis (2009), education programmes for the poor actually need to be better resourced and of higher quality than those for other strata in society if they are to succeed in ensuring equity and reducing poverty. The authors also say, "Poor people do not need poor programmes." Therefore, open schools must demonstrate that the education they provide is equivalent to or better than that available in conventional institutions. In addition to providing quality programmes, open schools are under pressure to produce quick results, and both cost money.

Conclusion

Open schooling's flexibility makes it suitable for Uganda to substantially reduce the opportunity costs of schooling for learners from poor backgrounds. Learners can study without neglecting their household chores or having to sacrifice paid work, practicing agriculture, selling at the market and helping out with various domestic chores which have

been the main reasons why learners drop out and absent themselves from school. Therefore when the programme is introduced, the learners will benefit greatly from the flexibility of choosing when, where and how to learn; and these will change the state of our education from good to great since it will get our country out of the inherent challenges of having teachers and principals who are less experienced and motivated, governing bodies with little capacity for supporting and managing schools, widely varied performance between the schools, limited human and financial resources, and low levels of literacy and numeracy among students.

References

- Abrioux, D.A.M.X. (2009). Special issues and practices in open schooling. In D.A.M.X. Abrioux, & F. Ferreira, (eds), *Perspectives on Education: Open Schooling in the 21st Century*. Vancouver: Commonwealth of Learning, pp. 3–34.
- Bitamazire, G.M., (2005). *Status of education for rural people in Uganda: a paper presented at the ministerial seminar on education for rural people in Africa, held between 7&9 September, in Addis Ababa, Ethiopia.*
- Butcher, N. & Roberts, N. (2004). Costs, effectiveness, efficiency: a guide for sound investment. In H.D. Perraton, & H. Lentell, (eds). *Policy for Open and Distance Learning*. pp. 224–245.
- Dodds, T., & Mayo, J. K. (1992). *The promise and performance of distance education in developing nations: the iec experience 1971-1992*. Paper presented at the International Extension College's Anniversary Conference, World Education Crisis: Roles for Distance Education. Robinson College, Cambridge, 20-24 September 1992.
- Du Vivier. E. & Ellis J. (2009). Enable the development of open schooling. In D.A.M.X. Abrioux, and F. Ferreira (eds), *Perspectives on Education: Open Schooling in the 21st Century*. Vancouver: Commonwealth of Learning, pp. 21-34.
- Esi, S. A. (2014). *Gender Equity in junior and senior secondary education in Sub-Saharan Africa*. Africa Region Human Development Department: The World Bank Washington D.C.
- Figueredo, V. & Anzalone, S. (2003). *Alternative models for secondary education in developing countries: rationale and realities*. American Institutes for Research. The University of Pittsburgh, Available at http://www.ieq.org/pdf/Alternative_Models_sec_ed.pdf
- Gaba, A.K. (1997). Is open schooling in India really cost effective? In M. Mukhopadhyay, & P., Madha, (eds), *Open Distance Education*. New Delhi: Jawahar Publishing and Distributors.

- Lewin, K.M. (2008). *Strategies for sustainable financing of secondary education in Sub-Saharan Africa*. World Bank Working Paper No. 136, Washington, DC: World Bank.
- Mafunga, F.D. (1998). *Distance education and open learning: Zimbabwe's Experiences, with Specific Reference to the Ministry of Education, Sport and Culture*. Paper Presented at the Workshop on Open Schooling in Africa, February 23-27, 1998, Harare, Zimbabwe.
- Ministry of Education and Sport. (2008). *Revised education sector strategic plan 2007-2015*. Government of the Republic of Uganda.
- Ministry of Education and Sports. (2010). *Uganda education statistical abstract, 2010*. Government of the Republic of Uganda
- Ministry of Education and Sport. (2014). *Education management information system, 2014*. Government of the Republic of Uganda
- Mhlanga, E. (2009). *The theoretical perspective of open schooling*. In F, Ferreira. (ed). *Quality Assurance Toolkit for Open Schools: Commonwealth of Learning Vancouver, British Columbia*
- Mitra. S. (2009). *Student support services in open schooling: A Case Study of Students' Needs and Satisfaction in India*. Open Learning. Available at www.tandfonline.com/doi/pdf/
- Murphy, P., Anzalone, S., Bosch, A., & Moulton, J. (2002). *Enhancing learning opportunities in Africa: distance education and information and communication technologies for learning*. Human Development Department. Washington, DC.
- NIOS. (2013). *Education for all: role of open schooling*. India: *International Conference*, Ministry of Human Resource Development, Government of India
- OECD. (2006). *Selected statistics on higher education*. Available at <http://www.oecd.org/data.pdf>
- On-Demand Examination System, (2012). *National institute of open schooling*. Available at <http://www.nios.ac.in/default.aspx>.
- Rumble, G. (1997). *The costs and economics of open and distance learning*. London: Kogan Page, PP 134-160
- Rumble, G. & Koul. B.N., (2007). *Open schooling for secondary & higher secondary education: costs and effectiveness in India and Namibia*. Commonwealth of Learning (COL): Vancouver, BC

- Uganda Ministry of Education and Sports. (1999). *The Ugandan experience of universal primary education*. Government of the Republic of Uganda.
- UNESCO. (1996). *Learning: the treasure within*. The International Commission on Education for the Twenty-first Century. Jacques Delors. Available at www.unesco.org/education/pdf
- n
- UNESCO, (2010). *EFA global monitoring report 2010: Reaching the Marginalized*, pp..80-89,
- UNESCO. (2011). *Global education Digest 2011 regional Profile: Sub-Saharan Africa*. UNESCO Institute for Statistics. Available at <http://www.uis.unesco.org/Education/Documents/.pdf>
- Verspoor, F. & Bregman, M. (2012). *At the crossroads: Challenges for secondary education in Africa*. Africa Human Development Department: World Bank. Available at: www.worldbank.org/
- World Bank. (1998). *Latin America and the Caribbean: education and technology at the Crossroads*. Washington, D.C.
- World Bank. (2002). *India: secondary education and the new Agenda for economic growth*. Washington DC: Report No. 24208-IN. The World Bank.