

Review

Developing countries and education, work and productivity

*Ronnie B. Jani, Joel Hood Joffe and Gavin Phillip

Department of Educational Psychology, Faculty of Education, University of the Witwatersrand, Johannesburg, South Africa. E-mail: ronnie_jani23@wits.ac.za

Accepted 5 August, 2015

By education, it is meant a Euro-American system of knowledge creation and dissemination which developed first in Europe and America but spread to developing countries through colonization. Although the developing world had its systems of education before the arrival of the colonizers, the advertised attractions of modern education were that, the new education had the potentials of providing modern employment and producing goods and services that guarantee a good life. These assertions have not held true, especially in developing countries; which, suggests that the assumed links among education, work and productivity are not that automatic but depend on working out carefully isolated political and socio-economic factors and on continuous strategizing schemes. The provision of answers to the following questions would constitute the beginning of the establishment of a firm relation among education, work and productivity in developing countries: What are those areas of the national life that offer opportunities for productive work? What are the needs of developed countries in industrial raw materials, in leisure, in arts and aesthetics and in learning that developing countries can respond to and satisfy? And What are the needs of other developing countries in industrial raw materials, leisure, arts and aesthetics and learning that another developing country can satisfy?

Keywords: Education, work, productivity, developing countries.

INTRODUCTION

In most cases, interconnectivity is presumed to exist among education, work and productivity. In fact, this presumed interconnectivity is often spoken of as an obvious phenomenon and a *fait accompli*. Yet, experiences in developing countries seem to suggest that this interconnectivity is neither as automatic as it appears nor is it as obvious as some philosophers would wish us to believe.

Education is both a process and an outcome; it is the process of acquiring information, knowledge and skills; but it is also the ability to demonstrate the possession of such information, knowledge and skills so as to qualify to be referred to as educated individual. Therefore, within the term "education" is embedded the concept of productivity as it is through the demonstration of the existence of information, knowledge and skills acquired through education and operationalisation of same that an educated individual is identified and recognized. In other words, if a person behaves in such a civil manner as to be noticed and appreciated, if a person's act and beha-

viour is overtly backed up and directed by relevant knowledge, such a person is said to be educated.

This therefore constitutes one knowledge paradigm wherein education is viewed as a product imbibed as input; the demonstration of the existence of education or input and application of same to the environment is considered as work and the quality of the application of education or input to environment is taken as productivity.

While the afore submission may be viewed as a kind of philosophical postulation, one is not unmindful of the fact that the greatest interest of social scientists, policy makers and indeed leaders of all categories lie in seeking pragmatic links existing among education, work and production of goods and services in relation to the manners in which these links may advance socio-economic development.

The direction of the present discussion is contiguous to the wish of social scientists as practical issues involved in the relationship existing among education; work and productivity are taken up later.

EDUCATION IN THE WORLD

Although, the world has experienced great educational traditions such as the African traditional education, pristine Aboriginal education, pristine Islamic education and Clan and Tribal education, that which is universally accepted as education today is the Euro-American-centric type of education.

From the 15th century when Europe made the first massive outing from its borders in search for raw materials and especially from the 19th century, when the Industrial Revolution in Europe compelled that continent to ruthlessly scavenge for raw materials all over the world, this Euro-centric type of education has been gradually spreading through the world. Nowadays, it is through the United Nations Organisation (UNO) that the Euro-American type of education is being consolidated with the promotion of such world educational projects as Education For All (EFA), the Millennium Development Goals (MDGs) and other such earlier educational projects.

For example, EFA directs that between 1990 and 2015, all nations of the earth should provide basic education to all children, youths and adults living within their borders; MDGs project directs that Universal Primary Education (UPE) should be provided to all boys and girls living on planet earth by 2015 and beyond.

Myriad monitoring agencies and activities exist to ascertain progress made on these prescriptions and directives. For example, one such monitoring concluded in 1990, fingered nine countries including Nigeria as nations retarding the development of the world in view of their large populations and high rate of illiteracy within their borders (New Delhi Declaration 1990); the latest monitoring carried out in this area unfortunately found out that instead of nine, the countries that are throwing spanners into the wheels of world development have become twelve with Nigeria still in attendance (Torres, 2002).

Apart from the existence of a mosaic of experiences and projects designed to promote Euro-American education in all continents of the world, powerful international organizations remain the backbone of the Euro-American type of education which is the subject of our discussion in this paper. Such international organizations include but are not limited to the United Nations Educational Scientific and Cultural Organisation (UNESCO), the United Nations Children's Education (Emergency) Funds (UNICEF), the United Nations Development Programmes (UNDP), the Association For the Development of Education in Africa (ADEA), the Latin American Statement for Education For All, the Arab Network for Education For All (ARABEFA) and the Global Campaign For Education (GCE).

No other type of Education on earth has this massive and powerful support; this impressive support therefore

makes of the Euro-American type of education, the education format of the world.

Whence Came The Euro-American Type of Education?

The origin of this education must be traced to ancient Greece 3,000 years earlier than now. Ancient Greece endowed the earth with most noble educational practices and theories; we learn this fact through the writings and postulations of ancient Greek philosophers such as Socrates, Plato and Aristotle to cite but a few.

The well known and reliable Spartan Greek education got reformed into the New Education System in the 5th century BCE and finally spread to Europe a few centuries later. The Spartan system of education is a pretty old system of education which was nevertheless well organized and which is enduring as it re-echoed through other newer Greek educational systems and continues to be examined even up to our days. The curriculum of the Spartan system of education promoted military education and the teaching of epic and lyric. It emphasized discipline of the body and mind but it was simple in design; the epics and lyrics in the main, eulogised ancestral heroic achievements and invited and spurred the younger generations to emulate those laudable feats of the past.

However, by the 5th century BCE, ancient Greece underwent extensive economic and political transformations that necessitated the adoption of a new system of education. By the end of the 4th century BCE, ancient Greece had made some exploits in its conquest bids so that its economic fortunes had become bright and glorious. Indeed a people that was known to be frugal and simple, by the end of the 4th century BCE had started becoming demanding in his tastes and in his decorative choices. Additionally, a society, where authority of elders and royalty held sway for many centuries, began to experience incidences whereby such authority was sporadically questioned. All these changes in actions and consciousness necessitated the fashioning of a new educational system that both accommodated and reflected this changing consciousness of the people. The search for this suitable education eventually led to the establishment of what history books refer to as Greek New Education (Biao, 2006).

The New Education had a number of interesting features which also endured till this day. First, it was a departure from the Spartan Education in many respects; for example, discipline which was the cornerstone of Spartan education got relegated to some background or at least lowered in the New Education; while Spartans maintained ancient poets on the curriculum, New Educationists introduced relatively new and recent poets into the curriculum; also, the New Education was complex

as it provided for many categories of learners including those beyond the age of 18 years. Basically, the New Education had provision for two main categories of learners, namely, the youths between the ages of one to eighteen years and those beyond 18 years. The youths were taught poems, songs and some amount of Martial Arts while the adult class was taught Rhetoric and Mathematics.

While elders were acknowledged teachers in earlier Greek Education System, sophists were the leaders and teachers during the era of Greek New Education. A sophist is a wise person or sage; although this terminology later assumed the connotation of an itinerant teacher. During the era of New Education, Greece, as a result of its wealth, attracted from far and near, acclaimed authorities in all branches of knowledge. Such eminent persons came from all the four cardinal points of the earth to sell their wares (knowledge) in Greece. So respected and distinguished were they that many Greeks were ready to part with some of their wealth to acquire rare knowledge. And the era of New Education flourished for about 50 years during which period some notable Greeks learnt and mastered the techniques of the sophists (Boyd and King, 1972).

The first Greek and most spectacular teacher to beautifully demonstrate the skills of the sophists in public places was Socrates (469-399 BCE). However, *With the rise of Macedonian Empire and the eclipse of the Greek States, the civilization of Greece stepped out of its national limitations and became the common civilization of all the nations on the shores of the Mediterranean* (Boyd and King 1972:9)

Thus Greek education reached Europe and spread from Europe to European colonies; this education has, over the last two millennia, developed and undergone many reforms which enable it to be perceived today as school based formal education, out-of-school non-formal education and a more elastic learning format known as lifelong learning.

Education and Work

There is a general belief that education leads to efficient work which in turn leads to social and economic development; in other words, the more educated or literate a population, the better would it work to bring about economic and social development. This belief was particularly popular and vibrant when in the early 1960s, a book edited by Adams Smith (1965) and entitled *Education and economic development* was published; this book equally carried an article written by the editor himself that was entitled *Literacy and schooling in the development threshold: some historical cases*.

This book that was basically made up of a collection of articles including that of the editor himself, argued passionately in favour of the positive correlation that was

perceived to exist between education and work and development. The publication of this book, at a time most African nations were being granted political independence, did not go unnoticed. The book turned out to have a profound psychological effect on the African elites who found their earlier suspicion confirmed. Most newly independent African nations therefore embarked upon massive expansion of the formal education infrastructures they inherited from the colonial masters with the hope that this will bring about both social and economic development.

According to World Bank Report (1988: 12 and 13) between 1960 and 1983 the number of students enrolled in African institutions at all levels, quintupled; primary school enrolments increased the most in absolute terms as enrolment even exceeded the fifth fold; the number of secondary schools tripled and secondary school enrolments went up three folds; the number of teacher training institutions went up three folds and students' enrolment in those institutions increased three folds; the number of universities doubled and a dramatic increase in university students' enrolment was recorded. Additionally, the number of teachers increased about fourfold at primary school level, eightfold at secondary school level and threefold at the tertiary level during this same period.

When this situation is analysed in figures, it is found for example, that while in 1960, Nigeria's year of independence, the country had 15,703 primary schools, 883 secondary schools and 2 universities (Adesina and Johnson, 1981:6), by 1991, the country ran 35,446 primary schools, 5860 secondary schools and 31 universities respectively (FGN, 1991); by 2008 Nigeria ran more than 50,000 primary schools, about 10,000 secondary schools and 102 universities (<http://www.nuc.org> 2008).

Side by side with the expansion in the formal education sector which began in 1960, non-formal education was being provided, albeit on a lower scale, to farmers of cash crops in Western Nigeria, Tanzania, Kenya, Ghana, Cote d'Ivoire and some countries of Asia.

All went well with this educational expansion until the first half of the 1980s when an economic recession crept in and began to negatively affect both the structures and developmental plans put in place by African and developing countries. And for the first time, developing countries' faith in the positive correlation linking education to development was shaken.

Analysis of Developing Countries' Socio-economic Performance

With the crises of the 1980s that brought about the Structural Adjustment Programme (SAP) in Nigeria, the refocused Ujamaa Programme in Tanzania, the renewed Nkrumaism through Rawlingism in Ghana and other

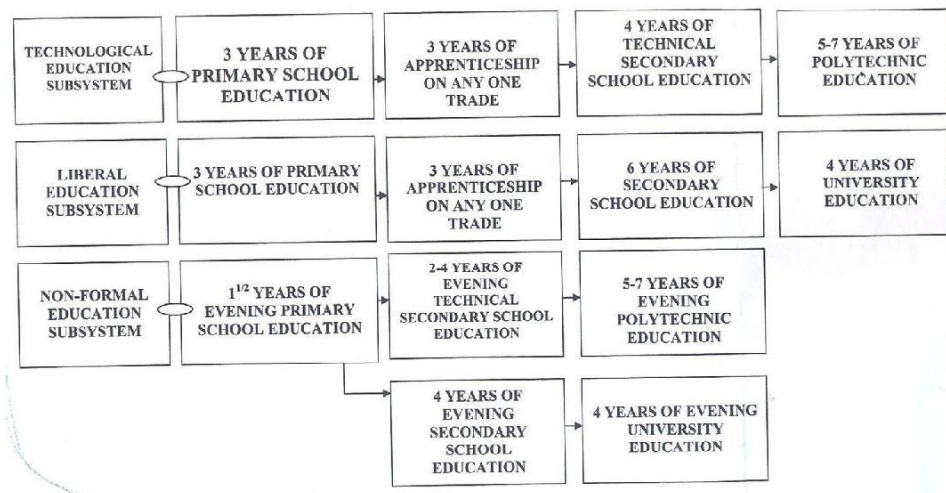


Figure 1. The proposed new system of education for Nigeria

Source: Biao and Biao (1997). The need for structural adjustment of the Nigerian educational system in the 21st century. *Tambari* 4,1:68-72

forms of adjustments in other countries, the first logical need was to determine the source of the crises. After the source may have been identified, analysis of the factors involved and recommendations for way out and way forward would be expected to be made.

A few contributions have been made concerning these crises in developing countries. Such contributions include the works of Biao (2008), Biao and Biao (1997), Yusuf (1975), Youngman (2005), Adick (1998), Thompson (1983) and Babalola (2007).

Biao (2008), noted:

Although, Africa experienced great educational expansion between 1960 and 1983 and although teacher training endeavour knew tremendous expansion during the same period, Africa continues to be plagued by serious social and economic crises. Current analysis shows that political instability begot by corruption, illiteracy, poor health delivery and poverty are the malaises confronting Africa. These malaises would not be eradicated through the educational system and teacher training programme currently run by African countries. If these countries are interested in making any significant progress in the 21st century, they must address the identified malaises through the means of education. The main group of workers best suited to help African countries eradicate these ills are teachers. Teachers are particularly useful in this exercise because traditionally the African teacher is viewed and accepted as a reliable change agent.

However, before he or she could be depended upon in the present exercise, he or she must be made to undergo a new type of training, which is here referred to as "MATADOR TEACHER EDUCATION". Basically, the matador teacher education programme advocates an eclectic teacher training to carefully selected student teachers. The characteristics that the would-be student teachers are to possess include a stout psychology, an above average I. Q., fairly healthy physiques and a mentality of campaign. (Biao 2008:1-2).

Biao and Biao (1997) had earlier on submitted that the first source of Nigerian educational crises is to be found in the fact that western education as originally conceived, is irrelevant to the educational needs of Nigerians; they continued by submitting that:

The second source of the crises is to be found in the inability of the country to adequately fund formal education which is promoted by government because of the illusion that this kind of education is capable of bringing about a respectable amount of private and social returns in terms of human development and the economic activities it would generate (Biao and Biao 1997: 69).

After using both quantitative and qualitative data to support their argument, they eventually proposed the following system of education as substitute to the existing Nigerian educational system of the time (figure 1).

Yusuf (1975) had found out, while working with farmers in Tanzania that literacy education does not necessarily make an individual a good or successful farmer unless the literacy education is deliberately tailored towards achieving the goal intended by literacy education programme developers; in this case making an individual a good cocoa farmer or a successful cassava farmer. He therefore went ahead to advise literacy experts to name and define the type of literacy education they intend to give the target audience which itself must be clearly defined and delineated well ahead of the commencement of literacy education if literacy must be found to be a useful tool for development.

Currently, one may discern traditional literacy, functional literacy, prose literacy, document literacy, work-oriented literacy, quantitative literacy, visual literacy, civic literacy and oral literacy to cite but a few as differentiated types of literacy; that which is advanced by Yusuf is that each of these types of literacy cannot yield any satisfying results unless it is properly directed towards the goal intended.

Youngman (2005) while making a contribution from the podium of an international conference holding in Cape Town South Africa, wondered how the training of adult educators on both academic and non-academic levels could be related to the needs of the labour market, so that job opportunities may be created for adult educators.

In other words, the mere training of adult educators does not guarantee work or create jobs for these trained adult educators; however, where training is provided with an understanding of labour market behaviour or with collaboration with the labour market, then availability of jobs can be guaranteed.

Adick (1998) described a situation in Republic of Senegal where formal primary schools were being deserted by pupils because both parents and pupils could not see the relevance of education provided in those schools to realities in society. As a response to this social protest, government introduced the concept of "ECOLE NOUVELLE" (New School) whereby the community determines what is to be learnt by the pupils with the government providing logistics support and additional basic education input in whatever curriculum the community may have decided on.

This way, Senegal has been able to maintain an equilibrium between school curricula and life in the community with employment fairly guaranteed while schooling is on and after schooling has come to an end.

Thompson (1983: 96-103) carried out a succinct analysis of education related social crises in developing countries when he submitted that education of developing countries could easily produce more educated persons than the economy can employ because first, such systems may end up producing persons with the wrong kind of skills; secondly, where governments of these countries fail to create jobs on a continuous basis, the

products of their educational systems would be faced with stern joblessness as education by itself cannot create jobs; thirdly since salaries paid to educated personnel in poor countries is "substantially higher by comparison with average per capita income than is the case in richer countries", developing countries' economies would be able to absorb only a small number of educated persons produced by their educational systems.

As if to concur with Thompson, Babalola (2007) made popular the following table of youth unemployment rates in selected African countries to prove that unemployment of schooled youths is an issue in developing countries.

Table 1 show that, of the 20 cases reviewed, about half posted unemployment rates ranging between 48 and 56 percent; this suggests that most developing countries harbour very high rates of youth unemployment.

While the latest results quoted on this table is old by more than 7 years, the reality is that current unemployment rates are worse than those shown on the table for the same countries; with the current collapse of world global economy, we can only expect even a worse scenario in the years spanning 2010 and 2015.

"Why then do large numbers of university graduates go jobless for years, while the business sector complains of lack of skilled workers?" Babalola gave a twin-answer to this question when he submitted that "labour supply problems" and "labour demand problems" were responsible for this situation; the labour supply problems, he identified as 1) a mismatch between teaching in our institutions and the needs of the labour market; 2) lack of consultation with private sector; 3) lack of qualified teachers to teach vocational, innovative, entrepreneurship and job skills. Labour demand problems, he itemized as 1) low demand from private sector for poorly trained graduates and 2) high demand of skilled workers for growth sectors of the economy.

Here then is the summary of the performance of developing countries as it relates to education, work and job opportunities. Clearly, equilibrium between education and work is yet to be established in these countries. Where then does lie the solution? Is Euro-American type of education to be banished from developing countries? Is our Africanness or Asianness to be reaffirmed and reestablished with the view to displacing Euro-American education? The answers to these questions can neither be "yes" nor "no". The answers must be found somewhere between "yes" and "no".

Productivity

At the beginning of the 21st century, indeed in a sporadic manner, especially when such institutions as International Monetary Fund (IMF) and World Bank (WB) intervene in a country's management, massive retrenchments of the work force are usually undertaken; the reasons for these

Table 1. Youth unemployment rates for selected African countries

S/N	Country	Group	Year	Unemployment rate %
1.	Lesotho	total	1997	47.40
2.	Lesotho	male	1997	37.90
3.	Lesotho	female	1997	58.50
4.	Malawi	total	1987	0.80
5.	Malawi	male	1987	1.60
6.	Malawi	female	1987	0.30
7.	Namibia	total	2002	10.90
8.	South Africa	total	2000	55.80
9.	South Africa	male	2000	57.90
10.	South Africa	female	2000	53.30
11.	Swaziland	total	1997	55.20
12.	Swaziland	male	1997	41.70
13.	Swaziland	female	1997	48.30
14.	Zimbabwe	total	1999	14.00
15.	Zimbabwe	male	1999	17.00
16.	Zimbabwe	female	1999	10.90
17.	Nigeria	all ages	2003	2.30
18.	Nigeria	Pry schl leavers	2003	14.70
19.	Nigeria	Sec. Schl leavers	2003	53.60
20.	Nigeria	Tertiary graduates	2003	12.40

Source: Babalola (2007). Reinventing Nigerian higher education for youth employment in a competitive global economy. Calabar: Dept. of Educational Administration, University of Calabar.

retrenchments, are often that the retrenched workers have become unproductive or under productive.

In economic terms, productivity means “the rate at which goods or services are produced, especially output per unit of labour” while in ecological terms, it means “The rate at which radiant energy is used by producers to form organic substances as food for consumers” (The American Heritage Dictionaries 2006).

Although, productivity may be discussed in terms of economic activities or in terms of ecological activities, the former is emphasized in the present discussion. Consequently, “In a business or industrial context,” productivity will mean “the ratio of output production to input effort;” “the productivity ratio is an indicator of the efficiency with which an enterprise converts its resources (inputs) into finished goods or services (outputs).” (Mc Grawhill 2006)

However, Seah (2006) adds to the discussion, the human fulfilment aspect of productivity; he submits that, irrespective of outcome of external assessment, as long as a person feels satisfied with his or her output on a job or activity, such a person is productive. In spite of his theory on the human fulfilment aspect of productivity, Seah does acknowledge the importance of the economic dimension of productivity.

Within the industrial and government environments, three common types of productivity measures have been

identified and adopted; they include “partial productivity”, “total factor productivity” and “total productivity” (Mc Grawhill 2006: 1 - 2).

Partial productivity measure is one in which only a single type of input (e.g. direct labour hours) is selected and monitored constantly or daily; total factor productivity measure is one that monitors two input factors (Labour and Capital) while total productivity measure is one measure that includes into the productivity monitoring process, all the inputs needed in the course of the making of a product or in the process of offering a service.

Productivity therefore is about first getting a work to do and secondly, doing this work in a manner as to bring appreciable economic and social returns. The first part of the equation is to get a work to do and this is the crux of the matter.

Currently, many youths who have completed full cycles of primary, secondary and tertiary education have no work to do. Is it that developing countries are still under the illusion that education can create jobs? Or is the posture that government's responsibility is to give education and it is the schedule of the private sector to create jobs?

If the second alternative is the answer, then the governments of developing countries would have been seen as having let down their populations. This is because

because creation of jobs is a responsibility that no government must shy away from. It is only after the populace has been equipped with work that productivity may be meaningfully discussed. In a situation where a vast majority of the populace is underemployed and where this majority takes on work just for the purpose of collecting some salary at the end of the month but not because there exists concrete tasks to be performed, our discussion of "productivity" will only be an idle discussion. Neither will it lead anywhere, the discussion of "productivity" when the worker himself or herself cannot appreciate the contributions he or she is making to national socio-economic psyche and to his or her personal psychology.

Productivity becomes an issue therefore, only when a healthy work environment exists. By healthy work environment, it is meant availability of work for most persons, which enables these persons to visibly and tangibly contribute and invest both into national granaries and into their personal psychology.

QUO VADIS?

Where then do we go from here? A rethinking of both the role of government in job creation in developing countries and that of education in relation to work must be undertaken.

Without prejudice to the on-going review of National Policies on Education across developing countries with the view to addressing the challenges of the third millennium and more specifically those of the 21st century, I should like to recommend the following:

1. Each developing country must carry out assessment of three areas of production by supplying answers to the following questions:

- What are those areas of the national life that offer opportunities for productive work?
- What are the needs of developed countries in industrial raw materials, in leisure, in arts and aesthetics and in learning that developing countries can respond to and satisfy?
- What are the needs of other developing countries in industrial raw materials, leisure, arts and aesthetics and learning that a developing country can satisfy?

2. When this "Needs Map" is clear, education policies should be developed consistent with the needs identified. The implementation of education policies such as these will more likely create more work and influence productivity more positively than the current practice of education for education sake.

3. Since change is the only permanent phenomenon in this material world, whatever may be obtained as answers to the questions posed earlier, will tend to change with time. It therefore behooves education planners and implementers to develop and apply adequate

skills for promptly reviewing policies and for fast tracking the implementation of reviewed policies.

4. Philosophers, that is, thinkers are needed by all societies; these are the think tank that ensure the continued progress of society through skillful direction and redirection; therefore, while much of national educational systems may have thus been made so utilitarian and functional, provision should equally be made within this system for opportunities to train high calibre scientists, Arts experts, mathematicians, policy strategists, and specialists in philosophical matters.

CONCLUSION

While current education formats run by developing countries do not have the capacity to create many jobs, opportunities exist for improvement. There exists vast areas of untapped opportunities in the developing world as they concern job creation; these areas may include agriculture, tourism and the hospitality industry in general, arts and crafts, traditional medicine and oral literacy and literature to cite but a few.

When systematic researches are carried out in these areas and into the recommendations made here, it might be possible for developing countries to begin their journey out of the quagmire that is joblessness begotten by inadequate education system.

REFERENCES

- Adesina S, Johnson T (1981). Cost-benefit analysis of education in Nigeria. Lagos: Lagos University Press
- Adick C (1998). "Formal and informal basic education in Africa-complementary or competitive" *Educ.* 58:50-64
- Babalola JB (2007). Reinventing Nigerian higher education for youth employment in a competitive global economy. Calabar: Dept. of Educational Administration and Planning, University of Calabar.
- Biao I (2006). Pedagogical and andragogical warfare and the psychosociology of andragogizing in Nigeria. Calabar: Unical Printing Press
- Biao EP, Biao I (1997) The need for structural adjustment of the Nigerian educational system in the 21st century. *Tambari* 4(1):68-72
- Biao I (2008). Matador teacher education for Africa in the 21st century. *Global J. Educ. Research* 7: (1&2): 11-17.
- Boyd W, King E (1972). The history of western education London: Adam & Charles Black
- Federal Government of Nigeria (1991). The National mass literacy, adult and non-formal education. Abuja: FGN.
- Nigerian University Commission (2008). List of Universities in Nigeria. <http://www.nuc.org> 2008
- Seah D (2006). Clarifying the meaning of productivity <http://davidseah.com/archives> 23/06/2006
- Smith A (1965). "Literacy and Schooling In the Development Threshold: Some Historical Cases" in Smith A, et al (eds) (1965) "*Education and Economic Development*" Chicago: Longman.
- The American Heritage Dictionaries (2006). Dictionaries <http://www.answers.com/topic/productivity> 10/15/2006
- Thompson AR (1983). Education and development in Africa. London: Macmillan Press.
- Torres RM (2002). Lifelong learning. Buenos Aires: IIZ-DVV
- UNESCO (1990). The Delhi Declaration: Framework for action Paris: UNESCO

World Bank (1988). Education in Sub-Saharan Africa. Washington D.C.: World Bank.

Youngman F (2005). "Concerns and pointers in the training of adult educators in institutions of higher education in Anglophone Africa" An introductory paper delivered at IIZ-DVV-sponsored international conference on training of adult educators- Cape Town South Africa.

Yusuf L (1975). "Literacy and job performance among farmers in Tanzania" Adult Educ. 6:1:10-19.