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Teacher Training in Sub-Saharan Africa

INTRODUCTION

In the twentieth century the world seemed comfortable to fit into two parts: “we” and “them”. To the Western world “we” consisted of countries that enjoyed a strong economic position, relatively good health leading to long life. “Them” consisted of other countries that were economically depressed, suffered from poor health conditions and experienced short lives. The “we-s” were perfectly content to ignore the “them-s” and even pretend they had little or no impact on the world at large. In the latter part of the twentieth century the world began to change rather dramatically as technology drew people closer together and increased our awareness that a ripple effect of conditions in one country affects the lives of people in other countries. We came to realize that we have a vested interest in the well being of even the poorest nations. Without question the poorest nations on earth are concentrated in sub-Saharan Africa (SSA). The Millennium Development Goals Report 2008 from the United Nations said, “. . . little progress was made in reducing extreme poverty in sub-Saharan Africa.” (UN, 2008, p. 6) However, the lynch pin of national health and prosperity seems to lie in education. The prevailing wisdom was that education provides a path to better jobs, thus better pay, with better pay comes more money for health care, with better health care citizens can enjoy a longer life. While the raw material of education consists of teachers, they are not teachers unless some kind of training and certification is provided to qualify them for such an auspicious job. Furthermore, education was not to be viewed as an easy panacea for all the woes of a developing country. It was supposed to be attainable but stringent; in short education was expected to be a rigorous event. These

suppositions lead us to ask “Does teacher training in sub-Saharan Africa serve to enable a rigorous educational experience?”

The concept that rigorous education is the product of an individual student’s perception and the co-constructed discernment of the student’s immediate community is rooted in Socratic theory. For Socrates, the presence of the teacher produces the greatest intellectual offspring. His value of personal contact as an element of education is seen in Socrates’ denunciation of writing as a modern educational device. “Writing, parodies live presence; it is inhuman, lacks interiority, destroys authentic dialogue, is impersonal, and cannot acknowledge the individuality of its interlocutors; and it is promiscuous in distribution.” (Peters, 1999, p. 47) Thus, according to Socrates, writing offers no notion of the student’s soul. The erotic imagery of intellectual seeds being implanted by interactive discourse was not lost on Socrates. “Words written in a disciple’s soul are fertile, can take root in others via oral teaching, and defend themselves in debate; written words, in contrast, are sterile and incapable of generation. Socrates wants question-and-answer intimacy rather than broadcasting; fertilization rather than panspermia.” (Peters, 1999, p. 48). Rigor continues this erotic imagery; it is a turgid intellectual phenomenon that takes its shape within the personal space of the receiver and within that perspective it is an individual perception, further, within a community perspective it is a communal perception.

Traditionally, much of educational research has focused on examining the student in various perspectives, the teacher in various roles, the great variety of teaching methods, the function and importance of institutional interaction, educational delivery methods and many more rubrics. What is noticeably missing in the discussion is the role that the *community* plays in education. The place of education in the collective psyche of a community should not be underestimated. Where education is valued it will most likely flourish. Where it is seen merely as

a decorative trinket, it will most likely not advance in stature. Studying the ecological context in which education exists deserves attention because that context is the Petri dish that shapes how knowledge grows and is used and valued by the community in which it exists. One way that a community values knowledge is by perceiving the educational experience as a rigorous activity. It is this *perception* held by the community that encourages students and inspires teachers. Therefore rigor is not a static exogenous variable, but rather a dynamic, co-constructed, communal value that is sewn into the fabric of neighborhoods, villages, cities and countries.

If teachers are the agents of education, and education is valued based on its perceived place in the community, then the training to which teachers are exposed must provide the incubation for rigorous academic achievement to ferment within the community values. Therefore the importance of the research question lies with the interface of teachers, of training, of students, and of the community.

BACKGROUND

African countries, particularly the sub-Saharan countries, are often seen in a negative light, as poor, underdeveloped, and as hotbeds of political upheaval. This view, however, ignores the rich traditions and varied cultures that much of Africa has contributed to the realm of human progress. The issues seem more associated with the “lack of harmonization between imported Western models with the indigenous educational activities and training systems practiced by African societies for centuries.” (Alkin, 1992, 45) The fabric of African culture and, through extension education, was greatly impacted by the early Christian influence as well as the influence of Islam. It is worth noting that tremendous advances took place in Africa including the discovery and use of papyrus, the Coptic language that played an important role in the early

Orthodox Church and many other such contributions are sufficient evidence not to rule out Africa as a contributor to world advancement. The most important element that has affected recent education is the colonialization that began in the 15th century with the arrival of the Portuguese and continued until the late 1970s when South Africa accepted Namibian independence. Since that time the SSA countries have achieved independence but at a price in lives, poverty and in a shift of responsibility for infrastructure. Nearly every country in Africa has experienced some kind of foreign rule which has had a lasting impact on the educational systems of the countries. “During this period, metropolitan languages were introduced as the medium of instruction, and the effects of this strategy are still being felt today.” (Alkin, 1992, p. 45) The result has been a loss of the traditional African culture and traditions as part of the educational system.

When the SSA countries began to re-invigorate the school systems, they had only imported models for a blueprint. There was an impressive quantitative surge that took place after independence as the following table shows.

Table 1. School enrollments and enrollment ratios in sub-Saharan Africa, 1960, 1983, and 1986

Level	1960	1983	1986
<i>Primary education</i>			
Enrollment (thousands)	11,900	51,300	53,340
Gross enrollment ratio (percent)	36	75	70
<i>Secondary education</i>			
Enrollment (thousands)	800	11,100	13,670
Gross enrollment ratio (percent)	3	20	23
<i>Higher education</i>			
Enrollment (thousands)	21	437	673
Gross enrollment ratio	0.2	1.4	1.8

(percent)			
Total enrollment (thousands)	12,700	62,900	67,680

Source: World Bank (1988). Education in sub-Saharan Africa: Policies for adjustment, revitalization, and expansion. Washington, DC. Author. World Bank (1990). [Information from sub-Saharan Africa, updated statistical tables from UNESCO]

Table from: Alkin, M.C. editor, (1992). Encyclopedia of Educational Research, (6th ed.) New York: McMillian. p. 46.

In an effort to affect quality there were various attempts to Africanize the curriculum by returning to the use of native African languages and to “adapt textbooks to reflect relevant culture and history.” (Alkin, 1992, p. 46.) However, SSA still faced significant challenges, in particular, a soaring demographic and declining economy. From the 80s and to the present, the economic crisis has perhaps impacted Africa the hardest. Drought brought agricultural hardships, world investment rates dropped; that, combined with a rapid population growth, spelled a serious decline in the standard of living. One of the results of these conditions was a significant deterioration of educational quality. Quality is not as easy to measure as quantity however, the low levels of literacy has not gone unnoticed. “The deterioration of quality is so pervasive that it has caused parents to question the usefulness of schools and has created doubt in the minds of some public officials about the utility of continued government support.” (Alkin, 1992, p.48.) This lack of faith exposes the doubt which a community harbors in the value of an educational system. If the educational product is seen as too simple, not challenging and irrelevant then the system will continue to maintain the support of neither the community nor the government. If a student, and importantly, the community, does not feel that education has been fulfilling and rewarding, then the product is perceived to be valueless. The perception that education produces a valued commodity is based on the perception that it is the result of a challenging and rigorous program. It is in the realm of perception that this paper hopes to address the place of rigorous educational experiences. In this frame a rigorous experience is evaluated only in the eyes of the

learner and in the minds of the community in which the learner participates. The importance of quality and especially the perception of quality is a necessary ingredient to educational outcomes.

In 1990, at Jomtien, Thailand, the World Conference on Education for All set a goal for 155 nations to achieve Education for All by the year 2000. This target date was later changed to 2015 when it became clear that the original target date was unrealistic. (World Declaration on Education for All

http://www.unesco.org/education/efa/ed_for_all/background/jomtien_declaration.shtml) also see

(Framework for Action: Meeting Basic Learning Needs

http://www.unesco.org/education/efa/ed_for_all/background/07Bpubl.shtml)

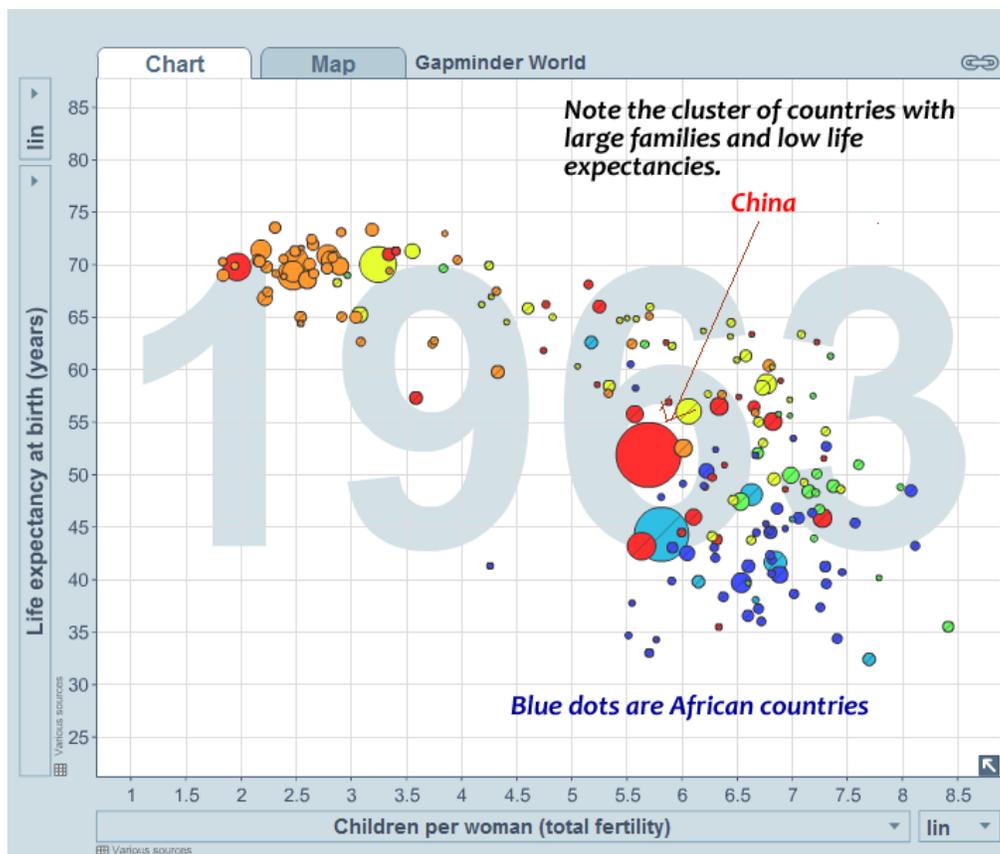
For SSA two things became clear, that there must be the sufficient infrastructure to handle the job, i.e. enough schools, teachers, and other resources to provide a minimum quality of education and, even if the capacity were sufficient how many children would actually attend. As Bennell points out “the supply of education will not necessarily create its own demand.” (Bennell, 2002, p. 1180) Obtaining the data necessary has not been an easy task. SSA is made up of 46 countries, (49 by some counts) each was asked to submit data on their educational progress at the Dakar Conference in 1990. Each country used a different format to submit the data resulting in difficulty standardizing much of the information. Bennell suggests that the easiest way to estimate how many children needed to be educated by 2015 is to subtract the enrollments listed in 1998 from the projected number of children in each country in 2015. (Bennell, 2002, p. 1181) Definition of terms has also been problematic. The primary cycle in education is not the same in all countries. Combine that with the disproportionate enrollment of males over females, and the job of estimating becomes even more difficult. Further, estimates need to account for the

detrimental effects of AIDS and other natural, economic and political obstacles to education on the population. Even though SSA accounts for a large number of countries Bennell says that 60% of the enrollment are located in five countries, “five relatively large countries account for almost 60% of the increase in enrollments needed to meet the 2015 target in SSA. These countries are Nigeria (16.5%), Ethiopia (15.6%), Democratic Republic of the Congo (12.4%), Sudan (7.9%), and Tanzania (5.3%). Another five countries, (Mozambique, Burkina Faso, Mali, Cameroon and Cote d’Ivoire) account for one quarter of additional enrollments.” (Bennell, 2002, p. 1182). These rising enrollments are not being met by an equally increasing teacher cadre. “In some countries pupil/teacher ratios are as high as 81:1 the primary level.” (Anamuah-Mensah, n.d., p. 1)

Breaking the enrollment down into categories can clarify the condition of education in SSA. The greatest pressure is at the primary level, according to UNESCO primary enrollments rose by 36% in the period 1999-2005. (Burnett, 2007, p. 4) UNESCO further points out that while impressive gains in enrollment have occurred in SSA there are still outlying regions where ratios are still low. “In Guinea almost all children in the capital region of Conakry are enrolled, but ratios fell below 50% in outlying districts.” (Burnett, 2007, p.13) As the enrollments grow in the primary level, there is also pressure on secondary education, since 1999 55% in SSA.(Burnett, 2007, p. 15) Tertiary education follows as well, SSA experienced a 5% growth however that is not as large as tertiary growth experienced in other regions of the world during the same period.(Burnett, 2007, p. 15)

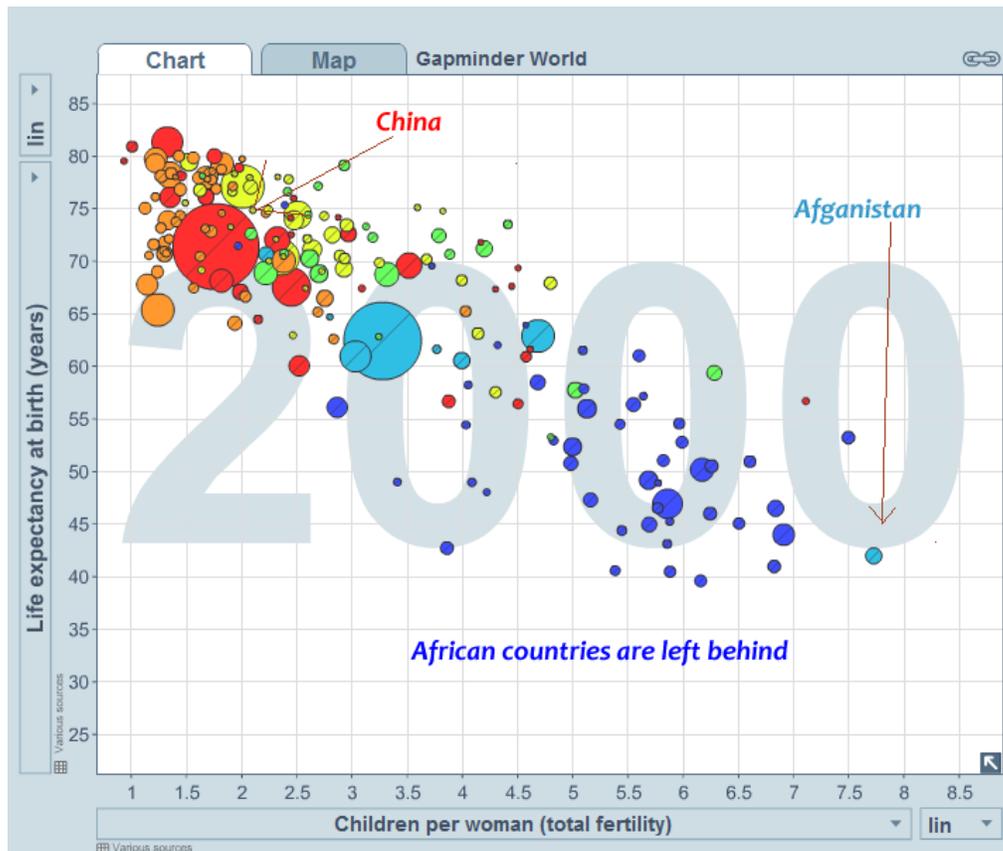
The complications of achieving the EFA goal can be dramatically demonstrated by comparing a few variables based on UN data and using a program called Gapminder. By comparing the birth rate to the life expectancy and starting in 1963, we can see that there are

many countries which have large families and low life expectancy. Notice that the African countries in the following chart are in dark blue, the red are East Asia and Pacific, the orange are Europe and Central Asia, the green are Middle East and North Africa, the yellow are the Americas, and the light blue are South Asia. (The big red circle is China.) Notice here that the world in 1963 seems to be made up of two distinct groups: those countries that have large families and short life expectancy and those countries that have smaller families with longer life expectancy.



But from 1963 until today, Africa has undergone independence, political upheaval, starvation brought on by natural conditions and by poverty, AIDS epidemic, and this has brought about a change. In following graph we can see that the world has left Africa behind. During the period, the world has changed as more countries are having smaller families and they are being

rewarded with longer life expectancies. However, the African countries are clearly still experiencing lower life expectancies and they are only exceeded by Afghanistan (the small light blue circle in the lower right of the graph)..



(These graphs and various other comparisons can be made by the user with the very flexible program “Gapminder” found at www.gapminder.org. All of the data in the program is culled from UN data.)

TEACHER TRAINING

Just like the rest of Africa, teachers have suffered from similar problems: poverty, increasing enrollments, and disease. Poverty has caused many teachers to try and find other work, or it has caused communities to accept teachers who work part-time and who have little or no qualifications. Compounding the problem, governments, particularly in SSA are finding the

costs of funding teacher training programs to be expendable. “As the teaching service is often the largest national profession, presenting the largest single wage bill to governments, so the costs of training the service are significant for national budgets.” (Perraton, 2007, p. 60) In troubled economic times these budgets are the first to be scrutinized.

Increasing enrollments have also put pressure on the teaching service. Throughout SSA there are a limited number of teachers and the addition of teachers is not keeping up with the increase in the population of school aged children. Maritim points out that in Kenya, for example, there has been a 23% growth in enrollment since 2003, however the number of teachers has actually declined 9%. (Maritim, 2009, p. 242) Sampong also notes the dearth of teachers in *all* areas of SSA:

. . . there is an acute shortage of trained teachers, created by an expansion of pre-tertiary enrollments due to rapid population growth, the success of basic education reform, and the inability of Colleges of Education to produce the required number of teachers because of inadequate infrastructure. This shortage is not limited to Ghana but is prevalent in all countries of sub-Saharan Africa. (Sampong, 2009, p. 1)

Additionally, the teachers who are working are likely to be unsuitable for the position.

Wolfenden states that “around fifty percent of existing primary teachers” are unqualified or under-qualified. (Wolfenden, 2008, p. 2). As governments look for ways to cut expenses, they have sought to recruit volunteers again lowering the image of the educational product. These forces do nothing to establish the perception of education as a rigorous and desirable condition within a local society. Wolfenden is aware of the social impact when she says “no doubt these contribute but other factors come into play, not the least the perceived status of teaching that takes time to evolve. This enormous number of paraprofessionals receives little formal training, is often unlinked to any labour or union support and constitutes in many developing countries a form of teacher underclass.” (Wolfenden, 2008, p. 3)

The profession and the status of the teachers in Africa also are threatened by a decline in salaries and the effects of HIV/AIDS are taking its toll on the teaching cadre. When teachers contract AIDS they inevitably lose time thereby adding to the shortage crisis and their disease may also take its toll on the morale and of colleagues and staff. The effects of HIV/AIDS on a teacher's relatives will add to the burden of the educational system. "Workloads could also increase as a result of higher levels of absenteeism and vacancies, and teachers (especially women teachers) will have to look after sick relatives, which could result in increased absenteeism and generally lower performance levels." (Bennell, Hyde, & Swainson, 2002, p.78). It is interesting to note that among teachers the effect of the AIDS epidemic is more serious among men and in their lower grade levels. Bennell, Hyde and Swainson present these results from Botswana:

Mortality rates among Ministry of Education and all central Government staff by grade in Botswana in 1999/2000: percentages

GRADE	Minister of Education		Central Government	
	Female	Male	Female	Male
A	1.31	2.82	2.28	1.88
B	0.95	2.08	0.68	1.2
C	0.73	1.1	0.53	0.91
D	0	0	0.37	0.68
E	0	0	0	0
F	0	0	0	0

(Bennell, Hyde, & Swainson, 2002, p. 78)

Despite the challenges, teacher training programs persist. Funds from the World Bank are being used to assist in teacher training activities however, the training still falls short of instilling community pride in the educational system. "In general, in-service programs attempt to train large numbers of teachers for either or both of two purposes: to certify untrained teachers where they are numerous, or to improve classroom teaching directly." (Heneveld, 1996, p. 32). Perraton has held that teacher training should include four elements, namely: "general education, teaching

about the content that trainees will themselves have to teach, material about children and their education, and practical work on the craft of teaching.” (Perraton, 2007, p. 58). However, there is significant debate that Western thought regarding education may not be universally relevant. Fuller and Clarke describe two frameworks through which educational effectiveness may be viewed: policy mechanics and the classroom culturalists. (Fuller, & Clarke, 1994). Our argument, that rigor is a culturalist perspective, fits well within this view.

The policy mechanics perspective places effectiveness within an empirical context and suggests that education produces a uniform product. “The *policy mechanics* – spurred by central agencies’ search for universal determinants of effective schools – have tried to empirically isolate those instructional inputs and uniform teaching practices that yield higher achievement.” (Fuller & Clarke, 1994, p. 120). The policy mechanics seems to be well fitted to a behaviorist approach to education. Alternatively, the *classroom culturists* seek to locate education within diverse social structures. “These observers of schools focus on the normative socialization that occurs within classrooms: the value children come to place on individualistic versus cooperative work, legitimated forms of adult authority and power, and acquired attitudes toward achievement and modern forms of status.” (Fuller & Clarke, 1994, p. 120). Since this view relies on the cultural context from which the student comes, it is more in line with the constructivist approach to learning.

The problem of the policy mechanics view is exemplified by Bloch and his experience with the people in Mamolena in Madagascar. “School knowledge is itself interpreted within the terms of the village home culture.” (Bloch, 1993, p. 10). The concept of knowledge is wrapped up in the concept of Zafimaniry life and thus a formalized and structured education may seem not only foreign but irrelevant to the Zafimaniry.

“This is because the home theory of knowledge and the evaluation of different types of knowledge are completely linked with the way such things as the body, gender, maturation, the nature of the living world and the understanding of productive and reproductive processes are all envisaged. In other words it is by understanding things which at first appear totally remote from education and literacy that their meaning for the Zafimaniry can finally be grasped.” (Bloch, 1993, p. 10)

It is from this perspective that the Zafimaniry view education as it applies to their three different ages of life: when the person “is not yet linked to a house and their body is soft and undetermined, . . . when, as part of a married couple, they are developing themselves through their descendants and their house, . . . when they start to separate themselves from normal human activity and are becoming ancestors. . .” (Bloch, 1993, p. 11). If education has any value to the Zafimaniry it must do so by fitting into their view of life. By situating education in the context of the social order we can again see the importance of how the community views education and thus values it. “The Zafimaniry attitude to such knowledge is that, of course it is true and one should know it, of course it cannot be questioned since it is true, and of course it is neither fun nor relevant.” (Bloch, 1993, p. 16). The ecological validity of education is thus put to the test by community standards, beliefs, and the practicality of everyday life. While an education may be seen as ‘nice’, there may be no job opportunities within the village which call for education to be utilized. It is the importance of locating education and its associated value (rigor) within the local culture that Fuller and Clarke note as the strength of the classroom culturalists and the shortcoming of the policy mechanics. In short, education is not simply a static product that has a universal meaning, instead it is a dynamic concept that is shaped by its peculiar environment.

The difficulties of training teachers under the dappled environments of SSA are obvious. The problems of cost compounded with the diversity of cultures, an understaffed and

undertrained teaching cadre, and health epidemics have lead many governments and institutions to turn to the cost advantages of distance education. Distance education (DE) also offers the best opportunity for teachers to attain training while in-service and to adapt the training to their community. The advantages are not limited to large countries. “In Africa, countries that have provided successful and large-scale distance education include Nigeria, Tanzania, South Africa, Zimbabwe, and Uganda.” (Sikwibele & Mungoo, 2009, p. 1) The potential of distance education is cited as a reasonable source for maintaining levels of teachers in Africa, “DE has the potential to stem high attrition rates of teachers and reduce the migration of teachers from K-8 classrooms to high school or college classrooms after they have received higher qualifications and have gained additional experience.” (Sampong, 2009, p. 2). Making use of blended technology offers flexibility for the variety of African environments, “these technologies offer tremendous hope towards meeting the present day educational challenges of lack of access to quality higher education.” (Boitshwarelo, 2009, p. 1). Despite the hope, there are challenges in using DE as a means of teacher training, “we can categorize the challenges we have encountered so far as technical, human resource, and cultural.” (Richardson, 2009, p.10). Certainly the vast geography of Africa, the remote locations of many populations, the poverty and the changing political environments make it difficult to provide internet access uniformly. There is a considerable lack of electricity and broadband service to much of the continent. Interestingly, however, mobile phone devices are much more prevalent, “mobile phone coverage reaches close to or above 90% if the population in many countries in the global south.” (Wolfenden, 2008, p. 3) It seems that technology has leapfrogged a stage of development and that providing distance education teacher training to remote areas of Africa may become dependent on cell phone technology. Many of the needs for providing in-service and pre-service training to teachers in remote and not-so-remote

areas of Africa has been met by the creation of Teacher Education in Sub Saharan Africa (TESSA), an open educational resource (OER). The development and use of the resource is worth consideration as a model for future projects.

TESSA

If we return to Perraton's four important elements of teacher training, we should expect that competency in these areas should be sufficient to raise the perception of education as a rigorous and worthwhile endeavor within a community. But, how can that be done in a continent which trails the rest of the world in income and infrastructure? To address this problem, The Open University joined with eighteen universities and other institutions across Africa and organized the Teacher Education in Sub-Saharan Africa (TESSA) program.

The concept is to provide an open education resource (OER) that can be accessed by anyone for free. In practice TESSA is aimed at 9 countries in SSA and serves 13 universities and 5 other international organizations. (Anamuah-Mensah & Moon, n.d., p. 2) TESSA is delivered as a website with no fees or password restrictions. Materials found on TESSA include audio and print products that are suitable for use in primary classrooms. Each module focuses on a core curriculum area including literacy, numeracy, science, social studies and arts, and life skills. In addition there is a module for teacher educator guidance which discusses how to use the materials, and there is a curriculum overview for each module. Wolfenden cites the five distinct characteristics of TESSA:

- 1) It is a global consortium that focuses on the needs of Africa. Included are the BBC World Service Trust, the Commonwealth of Learning, and the South African Institute for Distance Learning (SAIDE).

- 2) TESSA is an OER that is audience specific to teachers in SSA. The idea that an OER can be aimed at a target audience is a unique feature of the TESSA program.
- 3) The user, i.e. teachers, have been instrumental in creating the materials and approaches used in the program.
- 4) TESSA is making creative use of audio components in the content. These include radio, CD and mobile phone technology.
- 5) TESSA has recognized the importance of allowing adoption of resources for the varied environments in Africa. (Wolfenden, 2008, p. 7)

It is that final point mentioned above (#5) that is important to the theme of this paper. By provided access to training that can be sensitive to the cultural needs of the community in which the teacher must work, there is a greater opportunity for the populace to view education as a rigorous and valuable asset. “The TESSA materials thus needed to strive to recognize [*sic*] teachers’ existing deep experiences, teachers’ current development level and the necessity to embed them within the culture and context of the teacher’s practice” (Wolfenden, 2008, p. 9). The flexibility of TESSA lies in the internal content of sections consisting of introductions, learning outcomes, activities, and resources. Additionally the materials are available to all teachers but specifically designated for nine countries covering various regions in SSA: Ghana, Kenya, Nigeria, Rwanda, South Africa, Sudan, Tanzania, Uganda, and Zambia. (TESSA, <http://www.tessafrica.net>). Materials are also offered in a variety of languages. Importantly, learning concepts are taught to teachers (Perraton’s fourth element), in the context of everyday African life. For example, one story, using audio, features a father trying to teach his son the seven rivers in Africa. The son cannot learn by simply reciting so he returns home where his mother and other family members teach him the seven rivers by making a song about them. The

question to the teachers is “Do you give your pupils a variety of ways to learn new ideas in your classroom?” (TESSA,

http://www.tessafrica.net/index.php?option=com_content&view=article&id=141&Itemid=218).

TESSA also presents an opportunity for teachers to have a social network in which they can express ideas and exchange experiences. One such letter in the South Africa forum shows the classic “carrot-and-stick” approach that some governments are using to deal with teacher shortages in rural areas:

Hello all.

I am currently doing some research on teachers in rural areas in Sub-Saharan Africa. I spent several months last year living with teachers in villages in Nigeria, Ghana, Kenya, South Africa and Sudan, and understand the challenges that many rural teachers face.

I have recently come across two very different articles.

One is from Zambia where they are trying to make it the law that teachers go where they are posted (i.e. if they are posted to a rural school and they refuse to go they will be breaking the law).

The other is from Nigeria where there has been a call for a financial incentive to encourage teachers to teach in rural areas.

Which of these do you think would be the most effective? I think Zambia's approach is harsh, but would an increased salary encourage teachers enough to live and work in a rural village?

Alison.

(TESSA, http://www.tessafrica.net/index.php?option=com_fireboard&Itemid=230&func=view&id=257&catid=2)

As an OER, TESSA has made great strides in providing a reasonable, accessible, flexible, and functional approach to providing teacher training to a large portion of African teachers who would otherwise have no guidance. The materials in the TESSA site are being used by universities throughout Africa as a basis for in-service teacher training. As a marketing problem,

however, it needs to become more visible among potential users in Africa so that teachers in all areas are aware of the benefits that TESSA can provide.

CONCLUSION

We have discussed the importance of African education to the global ecology. We have seen that a rigorous educational experience is best viewed from a cultural perspective. We have looked at the plight of teachers as they try to work in their cultural environments, and the training needs they have in order to affect local perspectives of a rigorous educational experience. Finally we have seen how TESSA has provided an outlet for that training to exist.

Our original question was “Does teacher training in sub-Saharan Africa serve to enable a rigorous educational experience?” The answer seems to be yes and no. In those rural areas where education is still seen as a nice but basically useless asset to the everyday life of the village, then the vision of education as a rigorous and valued commodity has not been achieved. However, the promise of programs like TESSA which can bring training to teachers in remote locations, which can act as a social network to teachers who may have no other way to share experiences, and which can embed teaching practices within the local culture, then the community may begin to co-construct a vision of education as a relevant and vibrant addition to their lives.

From this we can learn that the issue is not to focus on rigor as a singular characteristic of pedagogical behavior but to culturally situate it within the community’s religious, social and cultural ecologies. The job of teachers goes beyond filling the students’ vessels with facts and figures but to allow them to relate their own constructed knowledge to the unique world in which they live.

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