

# **SUSTAINABLE REALITIES FOR SUSTAINABLE HUMAN DEVELOPMENT IN EDUCATION**

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## ***Abstract***

*Problems and challenges facing the developing countries including global drive to address imbalances in gender equality, protection of women and children, human capacity development to meet the challenges of the 21<sup>st</sup> century and global environmental problems. Others are diseases, lack of sanitation, famine and lack of employment, constitute the biggest challenge. Since the aims of any country include the improvement of the quality of life of all citizens, a number of measures taken are aimed at improving the quality of life of all people in the country through sound education. This paper highlights challenges faced by the education sector in the Province of KwaZulu-Natal, in its efforts of human development. It reports on the ideas of a variety of stakeholders in education on what needs to be done in order to realise sustainable human development in education.*

## **Background Information**

This paper is based on the recommendations that emerged out of a week's conference, held in the Province of KwaZulu-Natal, South Africa. The aim of the conference, which was sponsored by the Negro College Fund through Chicago State University working in collaboration with the tertiary institutions in KwaZulu-Natal, was to

engage in open discussion around issues of sustainable human development in Education. Conference attendees consisted of people from all walks of life, that is, both highly educated as well as ordinary citizens, all of whom are stakeholders in education. The paper captures the issues which were underscored by participants as the most crucial to address in order to enhance sustainable human development in education.

What makes the paper interesting is that it reports on the ideas of stakeholders in education on what needs to be done in order to realise sustainable human development in education. A variety of stakeholders in education consisting of school teachers, university lecturers, Further Education and Training lecturers, community members, headman of rural areas, officials of the ministry of education, and indigenous knowledge practitioners, all met for a week to discuss what led to the title of this paper, “Sustainable Realities for Sustainable Human Development in Education.” The paper discusses briefly the ideas that emerged from collaboration of these stakeholders. The education stakeholders were in the conference referred to as “The Education Team (TET). In the conference were other stakeholders discussing issues of rural development and their emphasis was on informal education.

### **Introduction**

A number of problems and challenges face the developing countries, including South Africa. These include a global drive to address imbalances in gender equality, protection of women and children, human capacity development to meet the challenges of the 21<sup>st</sup> century and global environmental problems. The existence of these problems along with other major problems, such as diseases, lack of sanitation, famine and lack of employment, constitute the biggest challenge. Since the aims of any country include the improvement of the quality of life of all citizens, a number of measures taken are aimed at improving the quality of life of all people in the country through sound education. In South Africa, these problems may be exacerbated by our immediate past of apartheid which left a huge back-log in the education of Black people. While we have to move quickly away from the imbalances of

the past, we also have to simultaneously try and deal with the current challenges of massifying schooling and access to Higher Education, without compromising quality. This paper highlights challenges faced by the education sector in the Province of KwaZulu-Natal, in its efforts of human development.

According to Fensharm (1999), environmentally concerned people have expressed alarm at the shortening of what was originally “ecological sustainable development”. The phrase had been coined in a meeting on Science and Technology for Human Development in Bucharest, Romania in 1974. There had been overwhelming and obvious evidence that the world’s resources had been misused or that the biosphere was being seriously damaged. This would of course impact negatively on the quality of life of all living things. There is no simple way of defining sustainable development, but here we shall adopt the definition put forward by O’Donoghue and Cosack (2008: 5) in their consumable Citizenship. Network, which states that:

*Sustainable Development is an ongoing comprehensive social process of change that makes it possible both to protect the current generation’s quality of life and to safeguard future generations life options.*

Sustainable Development involves learning how to make decisions that consider the long term future of the economy, ecology and the well being of all communities. The key task of education is to build among learners the capacity of such future orientated thinking.

It is clear that development aims at improving the quality of human life. Development should enable South Africans present and future citizens to realise their potential and lead lives of dignity and fulfilment. This has been one of the joys of the demise of apartheid, people regained their dignity. Development ought to materialise in the quality of life of all citizens improving in terms of a long and healthy life, access to education and access to the resources needed for a decent standard of living.

This paper cannot cover a fully representative number of issues of sustainability, but will address a few that the authors of the paper

felt are important in South Africa. There is no doubt that education plays a central role in the idea of sustainable human development. The definition of sustainable development refers to the world that we are inhabiting now which will also be inhabited by future generations, all these people need to be conscious of the importance of the concept of sustainable human economic and social developments.

### **Parental Involvement in Education**

Human development transcends the classroom, it requires parental involvement. Unfortunately, in South Africa the role of the parents particularly in Black schools has been very minimal. A culture that says it is the role of the teacher alone to educate the learner has evolved. The spirit of close support for the school and the learners unfortunately disappeared during the apartheid days. The democratic government of South Africa realised that without the support of the parents, schools would not be successful. The School Governing Bodies (SGBs) were formed to assist school managers in seeing to the welfare of learners and educators. It has been very clear that for schools to run properly and to deliver on the promise of effective learning, this requires parental involvement. There is a need for a national push for parent participation in learners' education. Parents, for instance, can be invited to serve as class volunteers or in other initiatives that get them involved in the learners education.

When the new subject technology was piloted in school in KZN, the parents were excited in seeing useful products that were made by learners. Some parents volunteered to help, for instance, with woodwork activities, with sewing, etc. This is the kind of enthusiasm that parents should show across all learning areas so that learners can realise that what they learn at school is affirmed by their parents. Parents believed that relevant education should, like technology, the new subject, equip learners with basic skills necessary to understand, explore and judiciously exploit the physical environment and its resources.

Writing on science and technology education for sustainable development, Ameh and Anegebe (1999) stated that sustainable human development is concerned about intra-and inter-generational

maximisation of potential capabilities, and distributional equity, with respect to natural resources. In Africa it is true that some parents are illiterate and so participation in literacy programmes must be encouraged. The school needs to be an educational centre which empowers communities around it. The whole community therefore, becomes a learning community. The learners get an environment that nurtures education and encourages learners to learn. We all know that schools provide the organisational environment for systematic, formalised teaching and learning in areas in which they are located. Schools form a structure that relates learners, local communities and educators, and this shows how complex schools are.

Coming to the issue of human development during the early stages of school, our contention is that parent involvement leads to the development of the child and also motivates the school to function at a higher standard by constantly improving practices. Research has proved that when parents value education and show it through encouraging their children and supporting the school, the students realize the importance of the school and learning. Bryan and Smith (2001) maintain that the typical organisation of the 21<sup>st</sup> century needs to be knowledge-based organisations composed largely of specialists who direct and discipline their own performance through organised feedback from colleagues, parents and education department.

Schools in South Africa, especially in historically Black areas, face serious problems in involvement of parents in education. The communities break into schools steel doors, computers and science equipment. The valuing and protection of the school has long gone. Dealing with these problems requires a change of mind-set and attitudes of educators and parents. Many of the schools in rural areas show clear signs of breakdown in structures and processes: malfunctioning administration, loss of authority among educators and principals, poor time management, disinterest, apathy, lack of motivation and poor communication with stakeholders in education (Moloi, 2005).

Clearly, in such conditions it will not be easy to lay a good foundation for future learning among the learners. The potential for learners in such conditions to reach their life goals is short-circuited.

The parents or communities around the school are not to blame, and challenges facing school-community collaboration efforts can be outlined as follows:

- Low education and illiteracy among communities.
- Parents working long hours.
- Fear for safety where parents have to attend evening meetings.
- Single parents who are unable to attend school activities.
- An uninviting atmosphere that parents experience when they enter the schoolyard.
- Negative attitude of principals and teachers towards parental involvement.
- Cultural and language barriers, for example, the use of English and Western cultural practices in schools attended by predominantly Black learners.
- Parents themselves experiencing problems such as alcohol and drug abuse, stress and illnesses that prevent them from becoming involved in school activities.

As seen from the list above, there are challenges faced by both schools and communities in establishing sound relationships between schools and parents. However, for the sake of the proper education of a Black child, these obstacles have to be overcome. Rogan (2003), reporting on the lowering of standards of learning in Mpumalanga, another South African province, states that on testing the science knowledge of Grade nine learners, they found that the knowledge of the learners was at grade 4 level. Such learners also have aspirations to enter university education or other Higher Institutions of learning at some stage, but partnership between the parents and the school just cannot be overemphasized for Human Development.

Eptein (2004) discusses a framework of six types of parental involvement as follows:

- Parenting - which help all families establish home environments to support children as students.

- Communication - which has to do with designing effective forms of school-to-home and home-to-school communications about school programmes.
- Volunteering - where the school recruits and organize parent help and support.
- Learning at home – which provide information and ideas to families about how to help students at home with homework and other curriculum-related activities, decisions and planning.
- Decision making – which include parents in school decision, developing parent leaders and representatives.
- Collaborating with community – identify and integrating resources and services from the community to strengthen school programmes, family practices, and student learning and development.

A lot needs to be done to convince communities about the vital role they can play in their local schools. Obviously, a lot needs to be done to train, educate and change mindsets and attitudes of the members of communities so that they can contribute positively towards education of their own children.

### **Continuous Professional Development of Teachers**

Professional development can be defined as an integrated set of organized and sustained measures designed to enhance the teaching profession within a context of school policy, organisation and culture (<http://nr.ca.org>). Professional development measures include strategies to improve educators' theoretical competencies, their ability to apply theory to solving educational problems, their research skills as well as their classroom skills and practice.

Whether a teacher is well qualified or not, there is a need for continuous professional development to keep abreast of new developments in one's discipline. In-service training (INSET) aims at upgrading the status of practising teachers to the level where they become experts in their disciplines. Like all other governments, the South African government is concerned that learners must learn effectively. Successful learning of the learner is judged by the learners

successfully matriculating at grade 12 with a high throughput of students qualifying to enter universities. Present levels of pass rates at schools and Higher Education Institutions leave much to be desired.

A well known educationist in South Africa commenting in the *Sunday Tribune* of the 4<sup>th</sup> January, 2009 about the grade twelve results said, “No amount of verbal semantics will hide the fact that South Africa’s broken education system is in need of thorough review”. Since the introduction of Outcomes-Based Education in 1994 before the educators were well grounded into the new philosophy of teaching, the culture of effective teaching/learning has been falling apart in South Africa.

It also seems that *ad hoc* poorly designed in-service courses for teachers have not delivered a more efficient and well prepared workforce. It is, therefore, recommended that when the national agenda mandates curriculum changes, the government must ensure that adequate training is available for educators. This must not be a once off training as we see happening, but continuous professional development.

According to Sayed (2001), there are many reasons why in-service training of teachers has become a subject of much concern. One of the reasons is that there is a growing emphasis on external accountability and demonstrable learners’ achievement has caused many governments to confront what teachers do in their classrooms after initial training.

In South Africa, various in-service courses are run by government national and provincial education departments, non-governmental organisations and institutions of higher learning. The main purpose of in-service training particularly for Black teachers is to improve their content base and their pedagogical competence in the delivery of subject matter. The content base of educators trained under the apartheid system is in most cases wanting, because apartheid education was engineered to offer inferior education to Blacks.

The Faculties of Education at the Universities of Zululand and KwaZulu-Natal are presently playing a role of in-servicing educators in rural areas in mathematics, science and technology. Other similar efforts are being carried out in other provinces. In time, we hope that

every classroom in rural areas will be manned by well qualified educators, well versed to deliver the prescribed curriculum. The quality of education in any country is determined by the quality of its educators.

In South African Universities, there is presently a hot debate on whether it is sustainable to allow non-certificated people to teach teachers. In schools, it seems that there is appreciation that people who teach should have been schooled into understanding how people learn, how to deliver content and strategies to use to enhance successful learning.

At university level, competence in mediating content is not necessary, anybody with a higher degree can teach teachers irrespective of their competence. There has been an outcry from the government of a high failure rate of students in general, including those enrolled to be teachers. However, there is a vicious cycle of student teachers who have been taught by people who have no clue about teaching and have been very poor models of teaching. The student teachers complete training and become poor teachers who perpetuate rote learning modes of teaching emphasized during their student days by professionally unqualified lecturers. There are people who are now arguing that competent role models of teaching are essential if we are to produce competent teachers. Some pro-active universities now require lecture to take a module on facilitation.

“Sustainable professional development” means that educators must attend workshops that address their professional needs on a regular basis. The present in-service workshops are not accessible to all those who need them and thus are not sustained. Educators in rural areas seemed affected by poor access to in-service programmes. This absence of access, works against continuous professional development. It is, therefore, recommended that all educators particularly those in rural areas must have access to professional development opportunities, like urban educators to ensure they remain current in the content and teaching fields and are equipped with the appropriate pedagogical knowledge and skills to deliver content.

It was also recommended that all educators, either through pre-service or in-service programmes, should learn about equity pedagogy

which will empower them with knowledge about ways that facilitate the academic achievement of learners from diverse racial, cultural and social class groups. This recommendation came with reference to new developments in South Africa where former separate or ethnic schools have now been integrated across racial lines.

### **Science and Mathematics are for Everyone**

In the times we live in which are dominated by rapid changes in science and technology, everyone needs to be able to debate about important issues that involve science and technology. Every human being deserves to possess a certain measure of scientific literacy so that he/she can make informed choices, for instance, about managing HIV/AIDS, diabetes or any other disease or problem. Seaver and Walhof (1999), argue that everyone deserves to share in the excitement and personal fulfilment that can come from understanding and learning about the natural world. A dominant theme in science conferences has been that without a sound science education programme, a country cannot achieve any break-through in its economic development.

Sjoberg (1996), states that learners need to learn science as a **process** because this approach helps learners to learn how science functions not only in the developed world but also in their lives as ordinary people. Science needs to be learned in a manner that contextualises science with the **world view** of the learners. If science is only learnt as a **product**, as it happens in many schools in rural areas because of poor resources and inadequately qualified teachers, learners are encouraged to memorise without understanding content. The result is very poor mastery of scientific concepts and consequently poor examination results. Educators in rural areas in particular need to be assisted with mastery of content and pedagogical skills so that they can become not only experts competent in the teaching of science, but also enjoy science.

The scenario of teaching science in poorly resourced schools with unqualified educators also happens in the teaching of mathematics. Educators teach mathematics as though it had no link to real life. Students are basically prepared for the next class. Writing on making changes in the teaching of mathematics, Wilson and Padron

(1994), posit that mathematics is an area of study that is rich in culture and applications. The author further states that mathematics is a creation of people and has been shaped by their needs, politics, perspectives and efforts to interpret nature. These interesting aspects of mathematics are never revealed in classrooms. School mathematics is often presented as a static body of knowledge to be mastered for an examination, leaving it devoid of character and supporting the erroneous idea that mathematics is for the elite.

In terms of sustainable development, the government and higher education institutions have an enormous task of providing a more culture inclusive mathematics teacher education in-service and pro-service programmes to help educators prepare for this task. A start could be made with the new Learning Area, Mathematical Literacy for educators.

Shan and Bailey (1994), also state that one result of colonialism and imperialism was the suppression of the culture and science of the third world peoples. Methods of counting adopted by our ancestors are never talked about in classes. Black learners never get affirmation of their culture in the classroom. This method of teaching promotes an inferiority notion of Black people. There is a need that in the teaching of mathematics, educators should show that mathematics is the product of the thinking and achievements of all peoples in the world.

For learners in rural areas, the issue of role models and positive motivators about the importance of learning science is crucial. In reality, there are very few black role models of scientists, but with proper training in science and technology education, educators can act as role models of what science is about. Educators can act as reliable sources of information about science careers. They can also inspire the learners and help them to understand and develop a positive “I can learn science and succeed in doing so” attitude. The role of science and technology in the socio-economic development of a nation is well known. It is, therefore, important that as a matter of sustainable development efforts, the under representation of historically disadvantaged learners in hard core sciences be corrected, because when students matriculate without science or very poor symbols, their aspirations to enter science and technology fields are compromised.

The results are that such learners cannot enter into lucrative well paying careers. This is hardly a recipe for sustainable development in the country.

### **Quality Assurance in Higher Education and in Schools**

In a paper which explored different approaches to quality assurance and to institutional audit of teaching and learning, Lucket (2003) states that quality implies excellence and that a service or a product is considered to be of high quality if it achieves its purpose effectively and efficiently and in so doing satisfies its customer. The new position of government in South Africa is that quality assurance has to emphasize internally driven quality assurance moving away from past bureaucratic quality control procedures that were manipulated externally. It is, however, still true that quality assurance in teaching education must have a dimension that is external to the institutions themselves, for example, through peer review by other institutions of Higher Education. The most valued part of quality assurance is internal institutional commitment to the improvement of educational quality by all stakeholders. The desired position is for institutions to take ownership of quality assurance activities because this would lead to sustainability on issues of quality assurance.

In the past, many South Africans were denied access to quality education, and quality assurance has been linked to the efforts of transforming apartheid education system, and open up access more broadly to quality education and training for all. Accreditation of programmes offered to students is therefore to make sure that no student is offered inferior education.

The Education Team recommended that to ensure quality assurance in higher education and in schools, an integrated quality management system which analyses and reflects on human resources and their needs should be implemented. Every person teaching school learners and/or preparing future teachers should be a qualified teacher. It is tough validation of qualifications that strengthens external and internal accountability structures of the education delivery system. In summary, it was stated that the ratio of learners to educator and rationalization for staffing formula, norms and standards regarding

staff qualifications, adequate books and materials, curriculum disseminated, language mode of instructional delivery and general infrastructure inequities must be addressed to ensure quality assurance.

### **HIV and AIDS Awareness Programmes**

Writing in a book entitled, *Black Death: AIDS in Africa*, Hunter (2003), states that in Africa today HIV and AIDS has intertwined with crippled economic and social development to rip society apart along every conceivable dimension. The author also stated that teachers were dying faster than they can be trained. In the province of KwaZulu-Natal, she said, one fifth of the college students were HIV positive. Indeed, stakeholders in education have seen students dying before or soon after completing their training. It was emphasized that there is a need to strengthen awareness programmes within schools to address poor school attendance due to learners taking on the roles of parent caretakers and also to respond to increased risks and rise in mortality rates among educators and learners. The collaboration between parents or communities and the school will facilitate discussion groups for teachers and parents to exchange dialogues on HIV and AIDS issues and the community.

### **Conclusion**

This paper has highlighted a number of issues that will impact either positively or negatively toward sustainable human development in education. There is no doubt that good and competent teachers particularly in mathematics science and technology will contribute significantly to the development of any country. Heptinstall (1996) writing on people's perceptions of science and technology stated that:

*The quality of life afforded by a society is directly and positively related to the extent to which people understand and effectively use existing science and technology, as well as creatively develop new technologies, while taking into account key scientific, economic, social and ecological aspects.*

It is therefore important for all citizens including learners, to develop action competence to actively participate not only in solving environmental problems but also positively addressing issues that will enhance the development of each individual's potential to serve the country to the best of his/her ability.

When a country invests in education, it is a productive investment, because an educated labour force is a source of productivity. (Castells, 1998:5), states that to be educated means nothing if the educated ones do not enjoy good health, decent housing, psychological stability, cultural upliftment and cultural fulfilment. Education means nothing if it does not put food to the table, provide one with good health system and sustain one's living standards.

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