Overcoming Adversity: A Holistic Response to Creating Sustainable Rural Learning Ecologies

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ABSTRACT The whole world is working towards creation of sustainable learning ecologies and mobilization of better and socially acceptable life through provision of transformed quality education for all. In order to achieve this, societies, in their different ecologies, should work collaboratively. This is, however, critical to achieve because most of the rural ecologies are faced with poverty, as such, it seems very difficult for them to render education support services. Another barrier is that gender inequalities exist in different parts of the world despite democracy that countries claim to be working in alliance with. Taking Lesotho as an example, several cases show how girls and women continue to be excluded from participating fully in the political, socio-economic structures and other national plans through lack of access to quality education. It is therefore believed that through collaborative participation of different stakeholders, such as educators, parents, learners, different government ministries and non-governmental organizations, societies will be empowered to create sustainable rural learning ecologies for learners so that adversity can be overcome; and underlying issues that affect sustainable rural learning will be identified together with the solutions and strategies towards overcoming such issues will be predicted.

INTRODUCTION

The progress in educational transformation so that learning could be sustainable depends largely on collaboration of teachers, learners, parents and different stakeholders. This is clarified by Stoll et al. (2006: 221) who state that international evidence suggests that educational reforms progress depends on teachers' individual and collective capacity and its link with school wide capacity for promoting pupils' learning. This process looks critical as it involves mutual respect, motivation, skills, positive learning, organisational conditions and culture, and infrastructure of support therefore requires time. The main reason for restructuring education system is to create a better society and environment for everybody and to ensure equity and equality (Lipsky and Gartner 1996: 106). This can be achieved through community action founded on critically- oriented, collaborative investigation of technological possibilities whether by learners studying a subject; teachers involved in processes of continuing professional development; local communities concerned about their own sustainability (Habermas 1976; Foucault 2002).

Sustainable learning is a holistic, multi-faceted and trans-disciplinary concept. In the field of education, notwithstanding increasing awareness of the high energy costs of public educational institutions, specifically schools and universities, and wide recognition that there may be more environmentally sound ways for educators to do their work, there are no well-developed frameworks available to use to measure environmental impact or to guide effective changes in practice (Habermas 1976; Foucault 2002). Even as conserving, energy has become the current decade's most popular performance goal, sustainability-related education offerings and recruitment programs have declined by two-thirds since 2001 (Carlson 2008). This paper gives the literature review and among others; the roles of different stakeholders in creating sustainable learning ecologies will be studied and the problems that hinder societies to overcome adversity through creation of sustainable rural learning ecologies so as to enhance the quantity and quality of learning.

Sustainability as a Concept

De Castell et al. (2010: 3) suggest that it is important to review and understand the discursive contexts in which concepts of sustainability have traditionally become articulated and expressed so as to expand the opinion on sustain-

able learning. For them, the epistemological and methodological lineage of sustainability draws back to fields such as Biology, Ecology, Economy, Architecture, Engineering and other traditionally scientific fields. Naturally, these influential paradigms exploring sustainability have served to guide and delimit the term's uptake in other areas. Perhaps due to its focus on the study of natural systems, Biology is one discipline that has most directly impacted the way in which the term sustainability is understood (Mackean 1998; De Castell et al. 2010: 3). There sustainability refers to equilibrium between an artefact and its supporting environment, where they interact with each other without mutual detrimental effects (Faber et al. 2005: 5). Other scientific and applied disciplines such as agriculture, economics and urban architecture have developed indicators to systematize the application of sustainability principles addressing particular discipline-based concerns (Bradley and Kibert 1998; Lindenmayer et al. 2000). Tàbara and Pahl-Wostl (2007) suggest that sustainability should be addressed from a wholly integrative organic perspective. In the field of education particularly, efforts to address sustainability have traditionally centred on the inclusion of environmental concerns into curriculum, and the implementation of socially relevant norms related to environmental practices within educational institutions.

Sustainable Learning

Sustainable learning is viewed, in this study, as learning that bridges the gap between environmental sustainability on one hand, and educational, social, physical or relational sustainability on the other. When learning is sustainable, it necessitates a holistic understanding of education that encompasses environmental conservation awareness, physical characteristics of instructional space, socio-cultural experience of place, modes of instruction, types and qualities of learning at both personal and curricular levels, economic, global and multicultural aspects of education, and roles of different members in a learning ecology (De Castell et al. 2010: 3).

Learning Ecology: A Biological Issue?

Ecology is an environment that fosters and supports the creation of communities. It is further defined as an open system, dynamic and interdependent, diverse, partially self organizing, adaptive, and fragile (Looi 2001: 14). From an ecology, there exists a learning ecology which is an environment that is consistent with how learners learn. Barron (2004) in Barron (2006: 195) defines a learning ecology as a set of contexts found in physical or virtual spaces that provide opportunities for learning. It encompasses different activities, material resources, relationships, and the interactions that emerge from them. The ecology is extended to include the following characteristics of a learning ecology; a collection of overlapping communities of interest; cross pollinating with each other; constantly evolving; and largely self organizing. In more formal education environments, the concept of self organizing gives way to a more structured process for knowledge transmission where the role of an educator is to facilitate (Brown 1999a; Looi 2001: 15; Siemens 2011).

Wilson (1995) in Looi (2001: 14) indicates that in a learning ecology, learners work together and support each other as they use a variety of tools and information resources in their pursuit of learning goals and problem-solving activities. Visser (1999) adds that the learning ecology involves a setting in which learning communities come into being, evolve, die, regenerate and transform. Using an ecological metaphor, the learning environment is likened to the biosphere, and the learning ecology is to learning what the biosphere is to life (Visser 1999 cited in Looi 2001: 14).

In order that diverse needs are addressed; learning should be allowed to occur in different ways; either in formal or informal ways; through instruction or without instruction. The ecology metaphor of learning views permits the environments to be seen from a systemic perspective, and to understand learning at a rich diversity of levels, in which the participants interact within and between each level (Looi 2001: 14). In a habitat, organisms remain independent however the life of one organism is conditioned by the life of the other organisms; thus there is a complete interdependence of organisms in an ecology. At some stage of organisational complexity, species interact with each other to form learning communities or ecologies. Fullan (2005) indicates that in a sustainable educational organization, relationships between people and the physical working environment encourage the purposeful development of the community.

Looi (2001: 14) states that since life forms exist at different levels of organisational complexity in ecologies it is possible to study relationships between organisms and habitats of different sizes, from microscopic bacteria to the complex interactions between the myriad of species of plants, animals and other life forms found in a desert. This implies that in a learning ecology, learning occurs at different levels of interaction and within several sub-systems as such, learning can be seen from different perspectives. At the individual level, learning happens at the cognitive level. At the group level when the individual learns with peers, interactions take place at the species level as group, peer or social learning interactions. When different species or populations coexist, there is a thriving community. Different communities form a learning ecosystem in which there is interaction within and between each level giving ecosystems complex behaviour (Looi 2001: 14-15). Examples of learning ecologies include the school, the work place, the home, a place of worship, the extended environment of family and friends, or a special interest group and other stakeholders.

Davenport and Prusak (2000) conjecture that human relationships are critically important to the health of information ecology as they make the various interactions and interdependencies possible. A critical emancipatory perspective in this regard would emphasizes issues on social justice as it focuses on equity and equality on the relationships and dynamics between the various participants in the classroom or other learning situation. Relationships, more than information, determine how problems are solved or opportunities exploited without making other participants feeling inferior rather mutually respected (Looi 2001: 15). If the social networks of human interdependence are based on equity, equality and mutual respect, then they will lead to cooperation and participation of everybody in creation of sustainable learning ecologies.

WHAT ARE THE NEEDS OF A LEARNING ECOLOGY?

To recognize the different structures and organizational forms that give rise to learning, knowledge and learning are seen as part of a larger social and ecological process (Lave and Wenger 1991). Learning is more than acquisition of stagnant content but it involves attainment of knowledge and skills and it is a lifelong dynamic, living, and evolving process. In an ecology, a knowledge sharing environment should be informal and unstructured. The system should also not define the learning and discussion that happens; rather, learners should, on their own, decide what their curriculum should include; thus aspects of the curriculum should be learner centred. The system should be flexible enough to allow participants to create knowledge according to their needs. It should be made of opportunities and appropriate resources for learners to develop their skills on knowledge acquisition.

There should be consistency and time management; to create a sustainable learning ecology, participants need to see a consistently evolving environment. The environment needs to be based on trust issues, equality among members, mutual respect and secure and safe environments. Moving onto the learning ecologies of Lesotho, it is marked from the former description of the Lesotho Constitution (Kingdom of Lesotho 1993) and from Article 28(a) that the government of Lesotho endeavours for learning environment that respects human rights and fundamental freedoms, and promotes teaching and learning. Such human rights and educational goals can be realised if the learning ecologies; both rural and urban could support sustainable learning. For most learning ecologies, the responsibility is placed on principals, educators and management committees of schools to create and maintain safe, disciplined learning environments yet there are no stipulated guidelines suggested for them.

Roles of Different Stakeholders in Creating Sustainable Learning Ecologies

Stoll et al. (2006: 221-222) indicate that educators internationally face major challenges in trying to sustain learning over time, and spread improvements throughout whole education systems. To deal with the impact of globalisation and rapid change, new ways of approaching learning seems to be required. Learning can no longer be left to individuals. To be successful in a changing and increasingly complex world, it is suggested that whole school communities need to work and learn together to take charge of

change, finding the best ways to enhance young people's learning. Seashore et al. (2003: 3) elaborate that the interest should not only be in discrete acts of teacher sharing, but in the establishment of a school-wide culture that makes collaboration expected, inclusive, genuine, ongoing, and focused on critically examining practice to improve student outcomes. This part gives a discussion on the roles that members should play in creating sustainable learning.

The Role of the Family in Creating Sustainable Learning Ecologies

The family is the first social group in which all people come from. Learning, which is a lifelong process, begins in the family where members of the family learn or teach one another values of the society. Parents are the primary educators, as such, they hold the responsibility for teaching children who they are, what they should expect in life and how to behave towards other people. Parents or caregivers are therefore liable to integrate child in the family and community life in order to prepare them and the community for the future. In this regard, the family can be considered as an agent of social organisation and regulation as it sets out to be the basis for society's definition and expectations about the behaviour of its members (Chaka-Makhooane et al. 2000: 52). This socialisation process begins from the moment that parents learn the sexual category of their children and continues throughout the children's lives.

Again, parents have always been crucial to their children's development but it is only in recent legislation that their extensive involvement in learning has been recognised. This has been due to the transformations occurring in education; which include parents' freedom of choice of which schools they want their children to attend; an active role they take in demanding provision of education support services for their children in schools. Moreover, parents could act as members of the school governing bodies so that they could take part in the implementation of school policies and ensure that their learners' needs are catered for in the schools (Chaka-Makhooane et al. 2002: 22). These changes indicate that they are made very important in as far as education and sustainable learning are concerned.

Department of Education (DoE) (2003: 11-12) also stipulates that parents or caregivers need to focus on developing appropriate behaviour in their children at home in order for them to accept discipline at school; they should also try to develop the communication skills of their child as far as possible so that as the learner gets to school, it becomes easier for communication with the teachers and other learners. As the primary caregivers, families know the learner very well, they know the developmental and medical history, strengths and weaknesses, joys and dreams as well as disappointments of the child. Such background information always needs to be shared with educators. The special understanding parents have about their children needs to be respected by educators. Caregivers or family members can go into the class and assist the teacher with minor tasks as volunteers or general helpers to assist the educator in coping with the diversity in class; that way, parents will be creating sustainable learning ecologies and overcoming adversity.

The Role of Learners in Creating Sustainable Learning Ecologies

In a learning ecology, learners should be considered as an open system interacting with the environment, acquiring information, integrating it and using it. All of these could be achieved if the education sector, which is generally seen as the most appropriate forum for involving children and youth in sustainable learning, could acknowledge that learners are not passive, they have the prerequisite knowledge which will assist them to learn new concepts in a way that makes meaning to them in the environment that they live in (MacGilchrist et al. 2004: 88). Rogers et al. (1992: 7) agree that students come into school with knowledge and experience that is grounded in other communities. The role of school is to help students expand that knowledge and experience to support this participation in multiple communities. Ansell (2006: 117) however, indicates that children's vulnerability is exacerbated by the fact that, in general, they have less power than adults to argue for improvements to the environmental conditions that affect them; but through collaborative and cooperative participation in environmental projects and decision-making, young people

may not only contribute to improving the immediate conditions of their lives but also acquire a long-term interest in the environment. Learners in a learning ecology should work together in order to overcome adversity and create sustainable learning within their ecologies. Children in the family set-up are socialised differently, and this usually results in parents steering their offspring towards appropriate gender roles. Basow (1992: 130) identifies this as differential treatment. This makes it difficult for learners to come together and share ideas as the girls would feel inferior to boys. The basic idea should therefore be that learners should support one another in their ecologies irrespective of gender.

The Role of the School in Creating Sustainable Learning Ecologies

The concept of health promoting schools introduces the view that schools should function as nodes, as hubs and as centres of care for all learners regardless of their diverse needs or vulnerability (Sayson and Meya 2001). Sustainable learning ecologies are developed mainly at schools as these are places where learners, from different cultural groups, meet and share their norms and values without criticizing one another's. These places have proved to be the best places for learner development and socialisation as they have access over prolonged periods of time to a large number of young people during their formative years. The main role of schools should therefore be rendering of care and support to learners. Mukoma (2001) and UNICEF (2006a) indicate that the school, as a caring environment for all learners, has an important advocacy role to defend the right to equal quality education for all children. This implies that schools are in a position to provide services in a natural setting; thereby minimising the likelihood of children with diverse learning needs from their peers, and reducing stigmatizing or discriminating attitudes the society may have towards learners who may likely be vulnerable.

The schools should be provided with all forms of resources including physical, material (equipment/devices) and human resources so that they could be in a position to assist learners to learn conveniently. The availability of the resources will allow provision for the full range of learning needs and address all barriers to learning. Again, the schools are accountable for the development of flexible teaching methods and assessment styles to accommodate all learners irrespective of their differences. Ramabenyane (2009: 120) emphasizes that schools need to cope with both external and internal demands for renewal in a creative development process as this will assist learners develop their own potential.

The Role of Teachers in Creating Sustainable Learning Ecologies

Teachers have the capacity to promote and sustain the learning of all professionals in the school community with the collective purpose of enhancing pupil learning (Bolam et al. 2005: 145). Using the critical emancipatory theory, the main focus is on empowering the marginalised, oppressed and excluded; these could be reached when everyone involved understands or has a sense of ownership of what happens in education. The main role of the teacher in this regard is to cultivate the culture of learning for all by acting as a facilitator not an instructor who will give orders. The teachers' central role is on how they engage with learners and how they establish flexible, relevant and caring approaches to learning so as to accommodate even those people who had been discriminated nor excluded in education irrespective of their backgrounds, abilities or diversity of their needs (Fullan 1992: 26). In learning, teachers need to employ collaborative skills, cooperative learning, and curriculum enrichment and know the appropriate ways in dealing with behavioural problems, focus on new approaches to problem solving, developing the learner's strengths and competencies rather than focusing on their shortcomings only. If educators are equipped and skilled for these, then they can effectively transmit knowledge to all learners with confidence and at the same time knowing that the skills will benefit learners and create sustainable learning ecologies in the long run.

Another point is that educators are faced with a critical challenge on how they engage in constant search for their own development. It is the responsibility of educators to improve their skills and knowledge through training and workshops. Toole and Louis (2002: 248) support that networked learning ecologies assume that to promote sustainable learning, teachers should

learn and change their practice. For them, teaching is inherently a non-routine and complex activity as such, teachers will need to continue learning throughout their career because there is a great deal of untapped knowledge already existing in schools; and the challenges teachers face are partly localized and will need to be addressed ''on the ground'', therefore teachers improve by engaging with their peers in analysis, evaluation and experimentation.

If teachers engage in refresher courses, then all other qualities of professionalism will follow hence this will be an indication of sustainable learning in the ecology (Fullan 1992: 26). The following institutions of higher learning offer educators training courses at different levels in Lesotho; The National University of Lesotho (NUL), through the Faculty of Education, Lesotho College of Education (LCE), Lesotho Agricultural College (LAC). These institutions also provide pre-service teacher education programmes at both undergraduate and post-graduate levels for primary and secondary schools (Ministry of Education and Training (MoET) 2004: 94). In addition to those afore-mentioned, the Government of Lesotho has again placed considerable value on in-service training as an important aspect of teachers' continuing professional development by allowing other institutions continue to contribute to the training of teachers. These include the Institute of Development Management (IDM), teachers' organizations and other Ministry of Education departments, NUL education units through their Induction Programme which runs regular short-term in-service training workshops for fresh graduate teachers. Individuals and groups of consultants are sometimes commissioned by MoET to offer short in-service courses for teachers on specific topics.

The Role of Other Stakeholders in Creating Sustainable Learning Ecologies

Care, support and protection of children mandates all stakeholders to participate actively in the national response towards the achievement of Basotho communities that are well informed about the ecologies they live in. The stakeholders could include different ministries in the government and the non-governmental organizations as well as other people who are affected by the changes brought by learning. In order for education to be strengthened and supported, it is important that the learning involves the aforementioned stakeholders. DoE (2003: 8) suggest that the stakeholders should provide the roles such as; rendering resources which could include qualified staff members who assist learners to achieve their needs to learning as well as teaching and learning materials to facilitate learning. They could also give funding to schools in different learning ecologies with regard to the form of support individual schools require. The stakeholders may act as the district support teams which would provide schools with revised norms and standards for teacher education and provide access for educators to appropriate pre-service and in-service training (DoE 2003: 8). They would again evaluate programmes and their effectiveness and suggest modifications to help all learning needs and provide secure learning environment, care and high level support for psychosocial needs of learners. This will enhance the creation of sustainable learning environments and decrease adversity.

UNDERLYING ISSUES AFFECTING SUSTAINABLE RURAL LEARNING ECOLOGIES

Nations around the world have embraced the need for education to achieve sustainability, only limited progress has been made on any level. This lack of progress stems from many sources. In some cases, a lack of vision or awareness, regional and local circumstances of change and reality have impeded progress. In others, it is a lack of policy or funding. In addition to these generic issues, governments at all levels will need to address issues that are specific to local conditions. Nyabanyaba (2009: 7-8) points out that secondary or high school education in Lesotho is extremely inaccessible and highly inefficient but not much has been done to study factors that influence access to learning and retention in conventional secondary high school.

The Geographical Isolation of Rural Schools

According to Hay (1994: 4), skilled personnel (qualified educators, education support service members), who can offer schools direct and indirect support service intervention to support learning do not prefer working in the rural ecolo-

gies due to lack of development so much that if employed there, they terminate the employment upon the first job offer that comes their way to find themselves working in urban areas. Isolated rural schools are faced with the challenge of teachers not having neighbouring schools where the teacher could consult another teacher from other schools nor engage in cooperative planning. This poses a problem of teachers relying on their knowledge with nothing much to supplement it (Helge 1985).

Bureau of Statistics (2002: 28) gives an example that due to isolation of rural schools and villages, learners and educators are forced to walk long distances to get to schools; without means of transport. Again young girls become victims of abuse as they get married or raped along the way to school and boys go to the initiation schools and leave schools to work in the mines. The Core Welfare Indicator Survey reports that dropout rates seem to be highest at ages 15 and 16, particularly among girls and 17 and 20 among boys (Bureau of Statistics 2002). This leads to increased dropout rates and lack of educators interested in working in such environments.

The Sparsely Populated and Wide Distribution of People

When the population is sparsely distributed, it becomes a challenge to the rural population because if the government sends informed personnel to serve the people, it becomes quite difficult to support them due to wide distribution and inaccessibility of some places. Few people have the edge to work in such environments. Looking at rural ecologies in Mafeteng district as the example, formal schooling or education, which functions through a strong partnership between the Government, school proprietors (church groups), and the local communities (parents), is not given much attention nor highly recognised in such areas because few skilled personnel are willing to work there. The lives of many people depends on farming practices and societies in rural ecologies still take part in traditional practices such as initiation schools (Bureau of Statistics Lesotho 2002: 15). This leads to low enrolments in schools located in rural ecologies and many learners still suffer as education offered to them is of poor quality.

Poverty

The disproportionate high incidence of poverty often implies that parents only have funds for basic living necessities (Hay 1994: 5). This result in education support services being neglected, and learners in need of education support intervention do not get the necessary support. Addressing issues of education in rural ecologies includes confronting the realities of people living in poverty and the growing diversity of rural ecologies in Lesotho. Poverty in the country is mainly caused by challenges that include high unemployment rates, persistent drought and a rampant HIV and AIDS pandemic with more than half the population dependent on food assistance (Nyabanyaba 2008; UNICEF 2007: 42-43). These challenges have had an impact on both demand and supply issues within education in Lesotho (MoET 2005). On the demand side, the socio-economic challenges were making it extremely difficult for parents to keep their children in school. Schools struggle with financing and the situation is worse in the rural learning ecologies where the societies are scattered (Helge 1985). This indicates that in the case of attracting suitable personnel, rural areas struggle with low salaries, social and professional isolation, long distances to travel and the conservatism of the people that are served.

There is a wide gap between secondary schooling in urban and rural areas; and this indicates that not only is Lesotho's secondary schooling highly inaccessible, but it is also grossly skewed and inefficient (Bureau of Statistics Lesotho 2002: 15; Nyabanyaba 2009: 9). For example, net attendance rates for secondary schooling were estimated to be 42.1% for urban children and a mere 16.6% for rural children (with extreme rural or mountain areas recording a mere 8.8% attendance rates (Ministry of Health and Social Welfare (MoHSW) 2005: 33). The wide gap is again evident in primary and secondary schooling because only 44% percent of students find accessible primary schools to attend in the rural areas, as they transit to secondary schools, only 26% gets enrolled; the rest dropout. This implies that other factors besides unavailability of neighboring schools prevents secondary students from attending school. Lerotholi (2001: 27) has suggested that the high cost of secondary education in Lesotho is a major threat to access. If parents had enough money or education was

offered freely in the country, all learners would get their rights to education and schools would make use of the available local resources to aid learning.

Lack of Funding and Inappropriate Resources

Due to inadequate supply of resources in different districts, distribution (of the resources) is usually uneven in the sense that the rural areas often receive few resources of low standard or quality; as a result, the population find it difficult to make progress out of the outdated and inappropriate resources offered to them. School facilities needed to aid learning consist of transport, security, technology, books, library, laboratories, classrooms, playgrounds for recreational activities. Due to the prevailing poverty and lack of funding in the third world countries, many schools or governments hardly afford to provide these facilities, but in areas where they are available, they are insufficient and do not accomodate the learning needs of the societies. In some instances, there is rarely skilled personnel to train learners or other members of the school communities to make use of them; as such, they are said to be inefficient due to their lack of clarity.

In urban learning ecologies, the government focuses more on improving resources for easier access or mobility of education support services. Taking transport as an example, it should be noted that people in most rural areas rely on public transport where the roads have been constructed but where there are no roads, people are forced to walk long distances, without transport services in order to get to places where they can get the education support services (Mercer 1973). This seems to be a social justice issue which focuses on equity and equality. Shortage of funds on the side of the government happens to affect sustainable learning and development on rural ecologies because a minority of people accept offers to work in the marginalized rural environments. This makes it difficult to overcome adversity.

Many teachers struggle with inadequate resources and lack of expertise on how to facilitate learning where there are insufficient leaning aids for learners (Unterhalter 2006: 55). It is important to note that if sustainable learning ecologies are created, all learners will benefit equally;

it is therefore vital to ensure availability of resources as this will lead to continuous success of the education system. These resources can be made available only if necessary funding has been considered in the planning stages by the visionary leadership (Dewees and Hammer 2000: 23). Three out of ten rural schools have at least one adequate building. This indicates that there is; to some extent; a degree of negligence of rural learning ecologies by the government as without the necessary school facilities rural learning ecologies find it difficult to overcome historical barriers associated with isolation.

Shortage of Teachers in Rural Learning Ecologies

The rural teacher shortage affects all subject areas but particularly mathematics, science, and special education. Most teachers do not have the edge to find teaching jobs in the rural environments as such areas are said to be underdeveloped (Kimane and Mturi 2001: 33). Among others, causes of teacher shortage in rural areas include social and cultural isolation, poor pay and salary differentials, limited teacher mobility and lack of personal privacy. In the case of Lesotho, the historical deficit of qualified teachers at primary and secondary levels has been exacerbated in recent times by increased enrolments and high attrition rate. It is noteworthy that while teacher training has expanded, the demand for teachers still exceeds supply in rural areas of Lesotho (MoET 2004: 95). The impact of under-qualified and unqualified teachers has a noticeable impact on the quality of education because in the end, learners' performance deteriorates. If this challenge is not solved, the situation of teacher shortage and the subsequent high teacher turnover will only create an even higher need for Continuing Professional Development (CPD) to re-skill teachers on innovative pedagogic approaches, immerging challenges in curricula, social issues, new technologies and management practices (MoET 2004: 95).

Resistance to Change

According to Donald and Lazarus (1995: 54) and Beeson and Strange (2000: 45), resistance to change, whether at the personal, professional or systemic level is recognized as a powerful

phenomenon because it is usually generated from the fear of loss including loss of belonging, security, autonomy and role certainty. Lives of people in the rural ecologies are mostly based on conservatism which leads to traditionalism and mistrust towards outsiders, as a result, they find it hard to accept changes brought to them (Hay 1994: 4). The members of the society may be less informed; as such, they may not allow outsiders to assess the learning situations that involve their children; and parents in particular, will go through stages of insecurity, thinking the roles they play in their children's development are phased-out by strangers. Before creating sustainable learning ecologies, rural communities should understand the socio-economic and environmental implications of rural change so as to actively involve participation of stakeholders (Dougill et al. 2006: 259). That way it will become easier for the communities to cooperate.

Psychosocial Support

According to Hlalele and Gasa (2009) a high number of children in rural poor communities receive less than is their right in a democratic South Africa (SA). Lesotho, as one of the democratic countries like SA, seems to face the same problem when it comes to offering education that is up to standard for rural communities. In order to deal with this issue, the rural learning communities should be given psychosocial support which is defined by Hlalele and Gasa (2009) as an ongoing process of meeting physical, emotional, social, mental and spiritual needs as these are considered essential elements of meaningful and positive human development. These will help learners to cope well in the school environment without feelings of being inferior to other learners. Ferreira et al. (2009: 160) add that to create an environment conducive to teaching and learning the safety of educators and learners should be put forth. If learners' socio-emotional and material needs are not supported, they often feel threatened and discriminated. This makes schools areas not accommodating for learning hence disruption of the normal teaching and learning process, which impacts on learners' access to educational opportunities (Joubert et al. 2004, in Ferreira et al. 2009).

Gender Stereotypes

Since Lesotho gained independence from colonial rule in 1966, secondary education has expanded dramatically in scale, but changed little in character. Ansell (2002: 91) indicates that even though expansion might be welcomed, the continued use of colonial-style curricula and focus on public examinations does little to fulfil the needs of rural girls in the country. Lephoto (1995: 4) unpacks by stating that women and girls remain marginalised in decision-making structures in the country as they are discouraged to pursue careers in courses that are highly recognised. In the end, women still make up only 30% of the paid labour force, they are regarded as minors, overburdened with domestic and reproductive roles expected of them by society and it appears that they are still underrepresented in the management of the education sector. The problem about women's issues in Lesotho and the rest of the world is that the law on equality of men and women is not self-implementing as women are kept out. Mahlomaholo (2011: 313) supports that in most instances; the exclusion is no longer overt but is maintained covertly through negative stereotypical discourses about girls' potential to do well at school. If societies could recognize sex roles, societies will facilitate the subordination of women as such; it will be easy to know individuals' needs if they are incorporated fully in learning and development.

Patriarchy as an Influential Factor

Patriarchy emerges to be one of the most important forces that underlie the development of gender roles and stereotypes which lead to increased adversity and learning that is not sustainable. The concept patriarchy can be traced to a time in history when social scientists used the concept to refer to a system of government in which men used their power as heads of households to rule societies (Walby 1997). Many definitions of patriarchy have been put forward, but in this study, patriarchy will be viewed as a social justice issue which refers to a system of social structures and practices in which men dominate, oppress and exploit women (Lephoto 1995: 2). This system of male domination regulates relations and justifies subordination of women through academic, socio-economic and political dependence by men.

The centrality of quality education provisioning for all towards a better and socially just life is acknowledged globally (Mahlomaholo 2011: 312). This is, however, not practical because the effects of patriarchy on society and education in particular relate to a situation of perpetuated inequality and leave women as the most neglected and marginalised groups in societies (Commission on Gender Equality 1998: 29). There are still skewed gender differentials unfavourable to girls in this modern era, thus impeding gender equality (Mahlomaholo 2011: 312). Women and girls have thus been discriminated against, in almost all sectors of society and in every possible means to attain their goal of supremacy. Men occupy leadership positions, such as engineers, technicians, ministers and head of states or principals while women are said to choose from subjects that are less demanding so that they could occupy lower positions (Basow 1992: 152; Mosetse 1998: 45; Mturi 2003: 497). This gives boys a chance to gain more confidence from early stages of development, whilst girls develop feelings of helplessness; as a result girls tend to develop a low self-esteem.

In the case of Lesotho, patriarchy is said to exist in situations where the mode of production, structures within the academic, socio-economic and material sphere discriminate against girls and women by giving them less opportunities than men for equal work, or allocating them only low-paying and unattractive work. Data from the National University of Lesotho (NUL) indicates that of the very few students who earn credits (A-C) in Mathematics, girls form a notable minority (32% in 2007) in the enrolments in the highly valued science programmes. Therefore, one can safely deduce that in the contexts of this poor performance, the greatest victims are girls and children from poor backgrounds and in the field of work, those will hardly be considered (Nyabanyaba 2009; Kimane 2005). It appears thus that patriarchy has hindered the success of the creation of sustainable learning ecologies because societies still believe that men should be more powerful than women.

HIV/AIDS PANDEMIC

It is estimated that 33.2 million people globally are living with HIV and AIDS (Joint United Nations Programme on HIV/AIDS (UNAIDS) and World Health Organisation (WHO) 2007). Of this total, 22.5 million people are from Sub-Saharan Africa, and about 25% of them live in Lesotho. It is estimated that 17% of the total population is made of orphaned children and half of the orphans are a result of AIDS (UNAIDS 2002; UNGASS 2002). This indicates that HIV and AIDS affect all sectors of the society by depleting both skilled and unskilled labour; and reduces the capacity of households to produce and purchase food, it decreases support for children's education and exhausts social safety nets because in many countries, people die from this pandemic disease at their most productive ages (UNAIDS 2006; Ntaote 2011: 3-5; Coombe 2000: 16). Trained people such as educators, farmers, doctors and economists become ill and die, leaving serious gaps in the professional workforce, which hampers future social and economic development (Ntaote 2011: 6).

Even though the government of Lesotho introduced Free Primary Education as a way to meet education for all, and although some measures have been taken to alleviate the plight of orphaned and vulnerable secondary school children through scholarships for double orphans, the impact of HIV and AIDS threatens the academic, socio-economic and political well-being of learners because once affected, learners struggle to survive. Free primary education and school bursaries miss out on many needy single orphans and extremely poor children because as they get to schools, learners are confronted with additional finances that may be required by the school including transport fares and fees for recreational activities and most learners cannot afford those. This leads to higher dropout rates among orphans than non-orphans in Lesotho's education system (Kimane 2005).

Other challenges experienced by learners affected include stigma, social isolation and discrimination through association with HIV and AIDS, reduced access to education, and long periods of absenteeism due to difficult home circumstances (Coombe 2000: 16). Learners dropout of school as they fear to be discriminated and treated with prejudice by their peers, educators or other members of the society because of the stigma attached to HIV and AIDS. If such children are not provided with quality psychosocial support from families, community members and, most of all, educators, they experience many emotions which are usually suppressed

and then, later, manifest in destructive ways (Ebersöhn and Eloff 2002; Mallmann 2003). Educators, learners and the community or stakeholders therefore need to be empowered and capacitated in understanding learners who nurture a debilitating parent or parents and those who already experienced parental death (Ntaote 2011: 8; Mallmann 2003).

CONCLUSION

On the basis of the above discussion, it could be recommended that to create sustainable learning ecologies, institutions must develop the capacity to prevent and cope with the unintended, negative, and often unexpected effects of the actions of the agents that compose the system and do so from a wholly integrative organic perspective).Through joint forces and participation of different stakeholders, societies can overcome adversity and come up with strategies on how they could improve and create sustainable learning within their ecologies. It appears from the above challenges that rural learning ecologies encounter problems however, it does not imply that the opposite is the case in urban learning ecologies as they also have obstacles but their causes are different from those of rural areas. Urban ecologies often struggle because of disciplinary problems at school, violence and air pollution.

RECOMMENDATIONS

In order to enhance sustainability in rural learning ecologies, the various stakeholders need to map asserts at their disposal. It is thus possible to simultaneously utilize and enhance various resources/asserts. This also helps to minimize dependence on external resources and institutions. Interactions among stakeholders can be guided by the 'internal logic' and priorities of the learning ecology rather than these being externally determined. The learning processes will strengthen local institutions and civic capacity for collective action, ideally to move forward together toward a shared vision. Collective participation can facilitate local management of the shared vision, thereby strengthening civil society and increasing active involvement. Collectives that articulate and pursue their own goals and priorities are more likely to expand livelihood opportunities, and do so in a

sustainable manner. The authors concur with sentiments of proponents who strongly advocate the enhancement of self-reliance. Internal challenges to the success of a self-reliance strategy stem from violations of the assumptions that: members share common interests and consensus is central to sustainability; inclusive participation and democratic decision-making within the community are necessary and possible; and sufficient autonomy exists for people to influence their learning ecology's future.

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