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Beyond Primary Education: Challenges and Approaches to Expanding Learning Opportunities in Africa

Parallel Session 7A

Assessment

Review of the State-of-the Art in Post-Primary Education and Training (PPET) in Eastern and Southern Africa

SYNTHESIS REPORT

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Pulane Lefoka (Acting ERNESA Coordinator)

ACRONYMS AND ABBREVIATIONS

ADEA Association for the Development of Education in Africa		
AIDS	Acquired Immune Deficiency Syndrome	
CA	Curriculum and Assessment	
COSC	Cambridge Overseas School Certificate	
EFA	Education for All	
ERNESA	Educational Research Network for Eastern and Southern Africa	
ESA	Education Standard Agency	
ECOL	Examinations Council of Lesotho	
FPE	Free Primary Education	
HIV	Human Immuno-deficiency Virus	
ICT	Information and Communication Technology	
IGCSE	International General Certificate of Secondary Education	
ISE	Intermediate School Examination	
JC	Junior Certificate	
KIE	Kenya Institute of Education	
MOEST	Ministry of Education, Science and Technology	
NCDC	National Curriculum Development Centre	
NEC	Kenya National Examination Council	
NIED	National Institution for Education and Development	
OBE	Outcomes Based Education	
PPET	Post Primary Education and Training	
PLE	Primary Leaving Examination	
PSLE	Primary School Leaving Examination	
SACMEQ	Southern African Consortium for Monitoring Education Quality	
SADC	Southern African Development Community	
TVET	Technical and vocational education and training	
TIE	Tanzania Institute of Education	
UACE	Uganda Advanced Certificate	
UCE	Uganda Certificate in Education	
UNEB	Uganda National Examination Board	
UPE	Universal Primary Education	
WGESA	Working Group on Education Sector Analysis	
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2. EXECUTIVE SUMMARY

The Association for the Development of Education in Africa (ADEA) commissioned the Educational Research Network for Eastern and Southern Africa (ERNESA) to undertake a study on the state-of-the Art on Post Primary Education and Training in Eastern and Southern Africa. The study was to focus on two critical elements of post-primary education and training: namely, curriculum and assessment.

The research is intended to explore research findings and recommendations, emanating from research reports, publications and government documents, on post primary education and training (PPET) in the subregions of Eastern and Southern Africa. PPET is here defined to include both academic secondary education and technical and vocational education and training (TVET) at the secondary level. The report seeks to identify research work that has been undertaken in recent years across these sub-regions with a focus on curriculum and assessment in PPET. Finally, it examines and assesses the extent to which research output has been utilized by policy-makers to reform the post-primary sub-sector.

The review covers three countries in each of the two sub-regions. Kenya, Tanzania and Uganda are selected for Eastern Africa and Lesotho, Namibia and the Republic of South Africa for Southern Africa. A desk and internet study was undertaken to gather published data and government reports.

Various challenges were experienced in carrying out the study.

- The assumption on the part of ERNESA and the client that publications on the internet would be the easiest mode of accessing documentation could not be achieved. Access of publication websites for an African researcher proved extremely difficult, hence inclusion of ministries of education documents although some were not research based. The decision to use such documentation was for purposes of supplementing research based findings.
- Administrative problems were experienced. It proved very easy to identify and agree with consultants to undertake the study. On the one hand the consultant based in the southern sub-region could not deliver the report. On the other the consultant based in the eastern sub-region encountered serious communication problems. While this particular consultant delivered her rough draft report, she could not, until very late, be located to revise and submit her final report. In the end, the Acting ERNESA Coordinator ended up doing part of the work instead of only coordinating and/or supervising the research project.

2.1 CONCLUSIONS AND RECOMMENDATIONS

2.1.1Curriculum

The review on the state of the art indicates that studies focused on innovations, curriculum diversification, curriculum evaluation and response to the socio-economic demands. A relevant curriculum for Post Primary Education and Training (PPET) should focus on academic and practical and/or vocational subjects, generic skills such as analytical and problem solving skills, if it is to prepare students for a working life and good performance in academic institutions. Failure to equip students with relevant education, particularly in the remote areas where learners have numerous challenges such as, having to head families due to the HIV and AIDS devastation, is a major setback at this level of education. There is therefore a need for equitable exposure in the early years of secondary education to a program that will respond to the PPE learners. Studies and reports reviewed for the purpose of this study indicate that,

- Despite their varying historical backgrounds and the times during which they attained independence, countries that participated in this study have been affected by their previous regime education systems. On the one hand intensive efforts were engaged in reforming curricula so that it responds to national developments and needs. On the other, governments have been very slow in reforming curriculum beyond the first initial reform activities. In this regard, curricula have been found to promote rote learning and few opportunities for learners to transfer and internalize knowledge and also to acquire skills needed in the world of work.
- Curriculum is still criticized for being heavily examinations driven. The studies revealed that some government's revised curriculum with a view to reducing the load and at the same time established National Assessment Systems to monitor learning competencies in secondary school. However, this study could not establish the extent to which these institutions have impacted on curriculum implementation and assessment processes.
- Curriculum development, implementation and monitoring are managed by institutions that are charged with this responsibility. These institutions are supposed to serve as modelers of research and policy implementation. However, information on the extent to which activities of such institutions have been evaluated is however scarce.
- Developing and implementing curriculum has been found to be a complex undertaking. Curriculum developers and implementers hardly receive training that would empower them with skills for transforming and implementing new curricular of any type. It is important to ensure that curriculum developers and teachers are aware of the "pedagogical and institutional stakes on which the new curriculum is based". Failure to empower this human resource negatively affects the implementation of new curriculum.
- Lack of financial resources tends to negatively affect the implementation of reviewed curriculum. This is particularly true in the case of implementing science based subjects, technical and vocational and/or practical subjects.
- Significant change that has been realized in some of the countries that participated in the study has been with regard to formulation of policies. These policies were formulated as a result of research based recommendations. However, the extent to which such policies have been implemented and their impact on the Post Primary Education System is not clearly revealed in the reviewed documents.
- Infusion of new curriculum topics is done in an uncoordinated manner resulting in overloaded curriculum. Moreover, the uncoordinated strategy for infusing new curriculum contributes to overloaded curricula and the tendency to revert to old curricula or abandoning new ideas.

2.1.2 Assessment

Numerous problems of assessment facing the secondary education sub-sector have been found. These include poor performance in national examinations especially in core subjects such as Mathematics and Science, low participation rates, low transition rates from primary to secondary and from secondary to tertiary. It has been found that

- Institutions that have been set up to be responsible for assessment have, among their significant responsibilities, the management of standards. Hence the presence of qualification frameworks in most of the countries that participated in this study.
- Some countries have in place assessment policies to guide the implementation of assessment activities at country level. The extent to which these institutions are positively influencing change in assessment practices is not clear.
- The introduction of new subject areas impacts on assessment practices. For example, the introduction of new practical subjects such as woodwork mean changes in assessment practices because assessing practical and/or vocational subjects require that examinees exhibit skills and/or competencies acquired.
- Teachers lack skills in assessing learners at classroom level and in implementing new assessment practices such as continuous assessment.
- Public examinations play a major role on the extent to which students transit from one level of the education system to another. Innovations observed in countries such as South Africa where learners are allowed to proceed with their cohort can only be implemented up to a point. Students still have to write external examinations which determine the extent to which they are admissible in institutions of higher learning.
- Performance in public examinations is a major contributory factor on the movement of students from one level of education to another.
- Inadequate school facilities at secondary school level affect the extent to which a large population of students can be admitted into this level of education. This problem is aggravated by the influx of students from the primary schools to secondary schools which might be due to the implementation of the Education for All intervention.
- Shortage of teachers in key subject areas such as science contributes to the rate at which students can transit to other levels of education systems.
- Full realization of continuous assessment as a form of innovation has been affected by the extent to which implementers particularly teachers are fully equipped with skills needed for the realization of the objectives of such innovations.

2.2 RECOMMENDATIONS

2.2.1 Curriculum

Based on the findings on curriculum, the following recommendations are made:

- Pay attention to the availability of up-to-date curricula, teaching and learning support materials if the current scenario where new curricula are implemented using traditional teaching and learning materials is to be addressed.
- Education ministries and regional and African institutions such as the African Union and the Southern African Development Community research and plans are a direct observation of the need to improve secondary education offerings. For proper implementation of such plans, substantial attention needs to be paid to equipping and supporting teachers with relevant skills for implementing curricula at classroom level.
- Ministries of Education need to pay special attention to implementing research findings promptly. Delays in doing so affect the relevance of research. Furthermore, policies on diversifying curriculum especially as regards practical subjects need special attention. There is need not only to formulate policies and legislation but to develop strategies for the implementation of policies on curricula.
- Developing and implementing vocational and technical education at the secondary school level appears to be considered a necessary form of education if work related skills are to be realized.

Governments need to seriously explore the need to introduce relevant curricula changes and explore possibilities for providing more and better learning materials in this regard.

• Governments have to review their curricula with a view to overhauling them. Overhauling the curriculum means realizing the fact that curriculum is not static. New subjects and topics can only be authentically introduced in the curriculum if drastic measures are taken to change curriculum as has been contemplated in a number of countries.

2.2.2 Assessment

The major finding at both national and international levels is that transition from primary to secondary school is a major problem experienced in the various education systems. There are a number of factors that impinge on transition rates. The facilities at secondary school level are not adequate to admit a large number of students. Therefore examinations contribute towards a large number of students who can be admitted into secondary education. The fact that facilities are not adequate indicates that the influx of learners resulting from the implementation of the Education for All cannot be admitted into this level of education. Shortage of qualified teachers to teach the key subject areas such as science and technology contribute to the rate at which students can transit to other levels of education. Based on the findings relating to assessment, the following recommendations are made:

.Based on the findings relating to assessment, the following recommendations are made:

- Examinations are used to control the number of students who can proceed to secondary school Assessment procedures followed rely heavily on public examinations even in countries that practice continuous assessment. The education ministries' approach to assessment should be to implement, through their structures, assessment techniques that will benefit the learners at this level where they are likely to join the world of work.
- There is general agreement from studies and reports that whilst assessment is the only mode of establishing the extent to which learners have acquired knowledge and skills needed for further education or, for movement to the world of work, much more needs to be done to improve the assessment practices in post primary education.
- Policies and modalities for assessing practical subjects need to be developed and implemented. There is need to involve organizations such the Southern African Consortium for Monitoring Education Quality (SACMEQ) to assist in developing modalities for assessment at secondary school level.
- A full realization of the innovations has been affected by the extent to which implementers particularly teachers are fully equipped with skills needed for the realization of the objectives of such innovations. Intensive training of teachers on assessment is paramount to reforming assessment practices.

3. Purpose of the Study

The Educational Research Network for Easter and Southern (ERNESA) was mandated by the ADEA to undertake a study focusing on the state-of-the-art. Specifically, the state-of-the-art meant review of curriculum and assessment at the Post Primary Education level covering the Eastern and Southern Africa regions Four countries that participated in the review include Kenya, Tanzania and Uganda in the Eastern part of Africa while Lesotho, Namibia and South Africa represented the Southern African part.

3.1 AIMS AND OBJECTIVES OF THE STUDY

The study explores research findings and the impact of recommendations emanating from research reports, publications and government documents on PPET in the Eastern and Southern Africa sub-regions. Specifically the study aims at:

- a. Identifying the range of research work that has been undertaken in recent years in the two subregions with special focus on curriculum and assessment in PPET;
- b. Examining the variations in focus, orientation and scope of the various national research efforts;
- c. Exploring the extent to which such research focus and outcomes are at variance with those of recent research on PPET internationally;
- d. Assessing the manner in which, and extent to which, research output has been taken up and utilized by policy-makers, their partners, and other local stakeholders, particularly in the planning and implementation of PPET reform in the two sub-regions;
- e. Outlining the implications for improved interaction between national and sub-regional research work and for the future of the PPET reform effort.

3.2 APPROACHES AND METHODOLOGIES

Whereas the purposive selection of the six countries in Eastern and Southern Africa (three from each of the sub-regions) that participated in the study was based on the assumption that the study would focus on research-based sources, numerous challenges were encountered in gaining access to such sources for these countries Additionally, while the understanding was that the internet would be the easiest mode of accessing published sources this actually proved to be the more challenging than other methods of access. Thus it has been necessary to place considerable reliance on ministry of education reports, although some are not research based. The latter nevertheless provide useful insights with regard to policy formulation and professional opinion. Thus, while the "state of the art" implies a contemporary focus, some of the resources are dated.

The main author planned to work with the assistance of two consultants, one in each sub-region. However, in the southern sub-region this arrangement did not materialize, while in the eastern sub-region the consultant was only able to contribute an unfinished report. This report therefore has the limitations of being mainly the work of one author.

The framework on the review follows the following chronological order: historical background, curriculum including TVET and assessment

Chapter I INTRODUCTION

1.1 Background

Education has been at the centre of a great deal of attention with the current focus not only on improving access, but also on achieving acceptable quality and relevance in education provision (UNESCO, 2004). The African Union (AU) considers education as key to the development of Africa's human resource for 'an integrated, peaceful, prosperous Africa, driven by its own people to take its rightful place in the global community and the knowledge economy (African Union, 2006). People can only hope for a high quality of life when the school curriculum that they go through is relevant and responsive to local, social, economic and cultural needs. If the education system as a whole is sensitive to such needs, this helps to ensure that knowledge and skills required in employment and higher academic institutions are the basis upon which the secondary education curriculum is founded. Encouraging schools to respond to national needs is particularly important in that, under the influence of the Jomtien Declaration of 1990 and the Dakar agreement of 2000, most governments in Eastern and Southern Africa have given greater priority to primary education than to secondary education. Moreover, as a recent report of the World Bank (2007) has pointed out:

In most African countries ... secondary education is facing three common problems: (a) inadequate infrastructure, (b) improper equipment, and (c) limited laboratories and qualified staff. Despite this, society is increasingly demanding that secondary education prepare students for jobs – that is, produce school leavers who are functionally – ready for work – and prepare them for higher education" (page 1).

Investment in secondary education is considered to yield considerable social and private returns and therefore to be crucial for socio-economic growth. But a number of new demands are being placed on the secondary education system in most of the countries in Eastern and Southern Africa. For example, the emergence of HIV and AIDS and that of Information and Communication Technology (ICT) have meant that curriculum designers must consider these and many other emerging issues as they review curriculum and improve upon assessment modalities. Emerging issues constitute a reality that education systems, including the post-primary sub-sector, have to deal with. Such developments, especially in situations where they have not only been implemented but have been studied, motivated ERNESA to participate in the efforts aimed at reviewing research on, and reports by ministries of education on developments in PPET. Engaging in the review would draw attention to the common challenges that have been identified in the studies undertaken on this sub-sector and the related policy decisions of ministries of education.

1.2 Historical Background

Colonial governments and the voluntary agencies that collaborated with them had a strong influence on the curricula used in schools and the assessment procedures followed. Independent governments that took over from the colonial masters in tropical Africa, in the 1950s and '60s, found the curricula to be in many respects irrelevant to national developments (Kofi, 1964; Kenyatta, 1965, Uchendu, 1979; Mazrui, 1982, Fafunwa, 1982). The same kind of political imperative for reform emerged in southern African countries which, more recently, achieved democratic majority rule. The cases of the governments of Namibia and South Africa provide a true picture of the extent to which governments found it justifiable to review curriculum in this situation.

The governments of Namibia and South Africa, having experienced the same "Bantu" education, demonstrate a reasonable progress towards changing curricula. These countries, although under different governments and regardless of the fact that they attained independence at different times, drastically overhauled their curricula so that they (curricula) no longer reflect the features of the countries' previous regimes. For example, both countries developed a new teaching and learning paradigm with the purpose of dismantling the previous regime's policy of segregation and inequality of access to education. However, Jansen (undated) observes some flaws in procedures aimed at reforming curriculum in South Africa in particular. In his view, Outcomes Based Education (OBE) as a policy is not grounded in the curriculum

change experiences of other countries with similar initiatives. Moreover, as Jansen further observes, OBE undermines the already weak culture of teaching and learning in South African schools, by burdening teachers with the responsibility of managing change

1.3 Establishment of National Curriculum and Assessment Institutions

Progress has been made towards establishing institutions responsible for curriculum and assessment in all the countries that participated in this study. Curriculum development centers or institutions were established with what seems to be a common purpose of. ensuring that true transformation is realized and that over time these institutions would be directly responsible for developing, implementing and reviewing curricula so that it caters for new developments. Documentation from ministries of education indicates that, for example:

- The Kenya Institute of Education (KIE) was established to take up the responsibility of developing curriculum for schools and tertiary institutions and of carrying out needs assessment to align the curriculum for the provision of quality education to meet the needs of the labor market.
- The Government of Lesotho established the National Curriculum Development Centre (NCDC) with the mandate of undertaking research on curriculum related issues, managing the purchase of books from publishing companies and working with national subject panels on curriculum development to develop syllabi for the primary and secondary education sub-sectors.
- In Namibia the Government assigned the National Institution for Education and Development (NIED), which is a section of the Ministry of Education, Culture, Youth and Sport, responsibility to reform and develop curriculum. The responsibility further meant developing the national language policy with English as the official language.

Similar efforts were made with regard to the establishment of institutions that would be responsible for assessment at national level. There are institutions responsible for assessment practices and more specifically for running examinations. These institutions have a common purpose, which is to ensure that examinations are conducted under clearly stipulated principles and are monitored and published. In the majority of the countries, the examination boards or councils are also responsible for issuing certificates.

Documentation shows that the countries' status regarding establishment of institutions responsible for standards differ. The government of Uganda established two institutions namely; the Uganda National Examination Board (UNEB) to be responsible for assessment of the academic achievement and the Education Standard Agency (ESA). In the case of the southern African sub-region or more specifically countries that are members of the Southern African Development Community (SADC) member states have a mandate to develop qualification frameworks which should ensure that standards are attained and maintained throughout the region. Some of the member states are advanced in this regard. South Africa and Namibia have long responded to the SADC call for establishing institutions responsible for qualifications and standards. Lesotho recently completed the task of developing the Lesotho Qualifications Framework (QFL) as an authority that would be responsible for the implementation of the QFL once it is established. A regional qualifications framework is, however, an outstanding need. SADC, having realized this anomalous situation, commissioned a study to prepare for the implementation of the Protocol on Education and Training. The study was to investigate, among other issues, the extent to which countries had developed their individual qualifications frameworks. This study, undertaken by the Umlilo weMfundo, made recommendations that would have to be implemented by SADC (see section on significant recommendations).

The Umlilo weMfundo (2007) study established that there are institutions which have been set up to manage school curriculum, but that in some countries the school curriculum is weak or in need of revision in terms of relevance and quality. It recommends that:

Since there are a number of high quality curriculum institutions within SADC... the SADC curriculum technical committee be resuscitated in order to enable these institutions to work collaboratively to improve their syllabuses, their teaching/learning materials, and their quality measurement systems (p.54).

Chapter 2 CURRICULUM

2.1 Introduction

Concern over the quality and relevance of curriculum is expressed in research reports and documentation by organizations such as SADC and the African Union. In its current Plan of Action, the African Union states the goal for curriculum development and the related issues of teaching and learning materials as "development and provision of balanced, relevant, responsive and culturally sensitive curricula adequately supported by appropriate teaching and learning materials, in all forms and levels of education in member states" (African Union, 2006, p.13). The African Union plan of curriculum change indicates that:

- A major area of curriculum in Africa is that Science and Technology. For Africa to entrench a culture of science, technology, research and innovation in its people, the teaching and learning of science and technology must be reformed at all levels, with a special focus on the use of ICTs. Teaching methods should encourage linkage between science and technology on one hand, and with the learner's culture and environment on the other. It is also imperative to significantly increase the participation of girls and women in science and technology education.
- Essential life skills should also be systematically infused into school curricula. Important areas include inter-personal skills, critical thinking, communication, entrepreneurship education, self directed learning, civic/leadership-skills education, and preventive health education covering HIV and AIDS, and malaria among others. The infusion process should involve paying special attention to African Knowledge Systems (African Union (2006, p.13)

Document analysis illustrates that all the countries that participated in this state-of-the art study have, at one point or the other reformed their curricula. The Education for All policy, for example, while it initially focused on the primary education sub-sector and was initiated at an international level, motivated some countries to begin to prepare for the possible consequences of such an international innovation for their national education systems. Namibia for example, introduced free secondary education. In fact, by deciding to make secondary education free, Namibia seems to have shown that some countries in Sub-Saharan Africa could be proactive in bringing about change in their education systems. However, international researchers such as Lewin (2001) for example, points out that while secondary education is now universal in the rich countries, it has limited participation in most of the developing countries. This finding implies that more effort still needs to be made by those countries in Sub-Saharan Africa where post primary education is still not free. Lewin has also pointed out the relatively high cost of expansion at the secondary level: it isn't just a matter of being proactive. To make it free is very difficult.

2.2 Diversification of Secondary Education Curriculum

Research and reports by ministries of education have been found to focus on topics such as curriculum diversification, evaluation and the extent to which curriculum responds to socio economic issues. Studies on curriculum indicate that ministries of education have an experience of diversifying national curriculum. Diversifying curriculum in this case has meant creating alternative or new programs as well as expanding programs in some situations. A study that was commissioned by the Southern African Development Community (SADC) presents some insights on curriculum diversification. The Republic of Namibia introduced Information and Communication Technology (ICT) in the form of computers at secondary school level too. Research on the ICT curriculum in which Namibia and two other SADC countries, Botswana and the Seychelles, participated, reveals that, while the idea of introducing Information and Communication Technology (ICT) into the curriculum of secondary schools was a clear case of responding to national and international developments, there were problems experienced in implementing this innovation. Chisholm, Dhunpath and Paterson, (2004) in reporting the findings make reference to curriculum change, learner centered issues, assessment, equipment and the role of teachers. Radical curriculum change implies three things: inclusion of ICT within the formal curriculum both as a separate subject and as a subject taught across the curriculum, the content of the curriculum and pedagogy. The philosophy of learner-centeredness is

manifested in theory but not in practice. Teacher awareness of the link between ICT and learner-centered pedagogy appears to be low. On comparability of assessment the authors indicate that the policy advocates ICT integration and infusion across the curriculum. However, assessment practices are uneven. Assessment is linked to traditional teaching styles. In essence, assessment has received relatively little attention compared to basic issues.

The ICT study clearly illustrates a situation where critical issues had not been given the attention they deserved. In this case, the implementers of this particular intervention namely teachers, were not trained for the task and, the lack of textbooks for learners is undoubtedly an oversight.

Vocationalizing post primary education curriculum has been found to be a major type of curriculum diversification. The rationale for revising curriculum in the case of Kenya for example was to find solutions to the observation that, at the country level, there were a number of social problems facing the country that needed to be addressed. Research in Kenya recommended that education be reorganized and that the number of subjects be reduced as the curriculum had been found to be overloaded. Hence, the reorganization of the curriculum in 1995 in Kenya was intended to emphasize a vocational type of curriculum. However, in spite of the logical prioritization of topics considered relevant to national needs, the practice, especially with regard to vocationalizing secondary education curriculum has not been formally followed through. Thus, while efforts at governments' level point to well intentioned plans to diversify the curriculum, the tendency is to revert to initial curriculum. This may be due to negative attitudes towards such interventions.

While there are problems associated with teachers not being equipped with needed skills for the implementation of innovations, the Republic of Tanzania appears to be advanced in that secondary education system is run by certified and trained teachers.

2.3 Reforming Secondary Education Curriculum

Innovations through reforming curriculum at the secondary school level is, in some countries delayed by resistance to reducing the number of subjects offered in the post primary education curriculum. In the majority of the countries that participated in this study, one of the major findings is that curricula are overloaded. For example, the Tanzania core curriculum for this level of education "contains twelve compulsory subjects. This results in a very heavy workload for students and presents severe problems in timetabling" (Ministry of Science, Technology and Higher Education and the World Bank, 2003, p.28). In such situations, the tendency is to plan for curricula overhaul and/or review.

Jansen (Curriculum reform in South Africa) makes reference to curriculum reform in South Africa and concludes that there are sound reasons for a curriculum policy modeled on OBE in that, for instance, Outcomes would displace an emphasis on content coverage. Outcomes, in his view, make explicit what learners should attend to, directs assessment towards specified goals, signals what is worth learning in a content-heavy curriculum and can be a measure of accountability. He concludes that the OBE will have a negative impact upon South African Schools and expresses the view that it will fail. He advances a number of reasons for his conclusion. For example,

- the complex language of innovation associated with OBE;
- OBE as curriculum policy is implicated in problematical claims and assumptions about the relationship between curriculum and society;
- OBE is based on flawed assumptions about what happens inside schools, how schools are organized and what kind of teachers exist within the system;
- OBE trivializes curriculum content even as it claims to be a potential leverage away from the content coverage which besets the current education system and that
- curriculum content is a critical vehicle for giving meaning to a particular set of outcomes.

Jansen (Curriculum reform in South Africa) concludes that in order for OBE to succeed it requires trained and retrained teachers, radical new forms of assessment, such as performance assessment or competencybased assessment; classroom organization which facilitates monitoring and assessment, additional time for managing this complex process, a radical revision of the most potent mechanism in schools that are known to militate against curriculum innovation. Among such mechanisms is the system of assessment.

Tawil (2003), discussing curriculum reform makes reference to curriculum developers. This issue has been alluded to by other researchers. However Tawil (2003), reports on regional consultative seminars and workshops in which Kenya participated. He indicates that "building the professional, technical, institutional and managerial skills of curriculum developers is a central component of this new mandate" (p.11).

Other researchers have written about curriculum innovation and/or reform. Prophet (1997) shares his findings on curriculum change in Botswana. His study on curriculum revealed that implementing curriculum is very complex. In studying the new curriculum on an English program he found that support given to teachers through workshops and using new teaching materials does not guarantee success in implementing new curriculum at classroom level.

The Republic of Kenya plans to revise its secondary education curriculum and introduce a good quality curriculum that is flexible and inclusive in all post primary schools. This curriculum will provide for a potentially increasing range of abilities and interests while it also addresses labor market needs (Kenya Ministry of Education, 2007). The extent to which this reform is going to have impacts on learners is yet to be assessed.

Closely related to the issue of curriculum reform are issues such as relevance and quality of curriculum as well as teaching, learning and assessment. Efforts that are intended to review and implement curriculum at any level of an education system imply the need to deliver curriculum that is not only relevant but one that is of required quality as has been observed by the Republic of Kenya. Bregman and Stallmeister (2005), comment on the relevance of curricula and on delivering relevant curriculum. They conclude that governments in Sub-Saharan countries are:

- searching for ways of augmenting the vocational relevance of secondary schooling by, for example, introducing "prevocational curricula" or "vocationalization" of general secondary education.
- examining how curricula can be linked to practical concerns while the costs associated with diversification can be minimized.

Bregman and Stallmeister (2005) seem to conclude that better links between secondary schools and the local job market must be created. They observe that in the contents of delivering relevant curricula, the tendency in many of the Sub-Saharan African countries is that there is too much reliance on rote learning and a significant lack of relevant and effective learning materials. In this regard they further conclude that there is a great "need to introduce relevant curricula changes and explore possibilities for providing more and better learning materials ..." (p.14). Ndala (2006) shares Bregman and Stallmeister (2005) view that curriculum promotes rote learning and that it provides few opportunities to transfer and internalize knowledge. The following case helps to illustrate the fact lack whenever a new curriculum is introduced relevant teaching and learning materials should be available.

Curriculum materials ICT Curriculum in Namibia – a case in point

A study by Chisholm et al., (2004) on the ICT curriculum reveals that this particular curriculum is in need of serious revision. It also reveals that the curriculum up, to Grade 10, is out of date and that textbooks and support materials are non-existent. One of the main criticisms of the curriculum is the focus on subject content. There is, for example, little to encourage teachers and learners to access the Internet for research purposes, the use CD-ROMs to support learning, to develop content knowledge and to practice certain skills. NIED still focuses primarily on textbooks to the exclusion of the development of electronic teaching and learning materials.

Another major finding by Chisholm et al., (2006) is that while ICT is present in the curriculum, there are very few trained teachers and learners. In their analysis, most critical is that the existing curriculum in Grades 8-10, where there are textbooks, is out-of-date. They recommend that:

- current revision efforts by the NIED need to pay attention to the availability of up-to-date curricula, hardware, software, textbooks and learning support materials.
- Training the trainers is crucial if teacher-training needs are to be met.
- Substantial attention needs to be paid to integrating technical knowledge skills with learning skills: critical and problem-solving pedagogies are a priority.
- Teacher support exists in the form of projects and organizations, but many teachers are isolated and need to be linked to ICT teacher networks.

2.4 Technical and Vocational Education

A reform effort in the Technical and Vocational Education (TVET) sub-sector is articulated in the "strategy to revitalize" document that was prepared by the African Union. TVET is a desirable form of education (African Union 2007). UNESCO and ILO (2002) argue that TVET is a form of education needed by all education systems. TVET broadens horizons by serving as an introduction to the world of work, orients candidates with interest and ability in technical and vocational education to prepare for occupations or training outside the formal education system and helps young people who are likely to leave formal education system with no specific aims or skills to continue with vocational training and personal development.

Presumably a good TVET program, run in a well established system with policies in place, could be an asset to education systems in Africa. The strategy document therefore provides "the framework for the design and implementation" of national TVET systems (African Union, 2007, p. 16). The African Union formulates a strategy document fully aware of the challenges facing this form of education. The challenges include lack of trained teachers for this form of education at post primary level, adequate financial resources, low percentage of public institutions that run TVET programs, as well as the extent to which post primary curriculum can be fully vocationalized.

Despite established challenges, there are lessons that can be drawn from countries that have experience in running technical and vocational education. These include lessons in the area of the setting up of national training authorities as well as national qualifications frameworks. Countries such as South Africa, Namibia and Tanzania have Qualification Frameworks in place. This is an innovation that elevates this type of education. While there are challenges facing South Africa regarding the pace at which the National Qualifications Framework (NQF) is being implemented for example, this innovation has positively impacted on the TVET system. There is, for example, coherence of the qualification structure in South Africa (African Union, 2007).

The African Union proposes an implementation structure and suggests that national TVET policies be developed and that they could assume titles such as councils or authorities using lessons from other African states. The Lesotho Ministry of Education and Training, in formulating a policy on TVET, makes reference to shortage of skilled labor, demand for training places, lack of employer confidence in the graduates of the Trades Training Institutes (TTIs) and/or *the Skills Training Centers*, the private sector investing very little in the training of their workforce and new entrants, little planning for TVET at national, industry or institutional levels, unstable and constrained TVET budget all of which has resulted in training being supply-driven since it fails to address the skills needs of formal and informal workplaces (Ministry of Education and Training, 2007).

The Republic of Tanzania has a very long track record of TVET. It is not clear where they arrived after abandoning the "self-reliance" curriculum of the past. However, Tanzania is also keen to reform its technical and vocational education offerings. The Tanzania's Ministry of Science, Technology and Higher Education and the World Bank (2003) reports that the main elements of the current strategy for the development of vocational education and training includes ensuring quality through flexible curricula, transparent and effective processes for registration, assessment and certification, the provision of support to all providers and improving the skills and pedagogical training of instructors.

According to the Tanzania Ministry of Science, Technology and Higher Education and the World Bank (2003), the current efforts to reform vocational and technical education and training are promising except that the process is regarded as a long term one. The lesson to be learned from the Tanzania TVET system is the fact that the strength of the reform effort is that funding is provided by the training levy. This is a sign of sustainability of the system in Tanzania. However the Ministry of Science, Technology and Higher Education and the World Bank (2003) recommends that in the medium term attention should be placed on areas such as organizational and institutional arrangements, quality assurance, equity and poverty eradication, human resource development and financing.

UNESCO and ILO recommend that

- Given the disparities that may exist between formal education, whether secondary or tertiary, and employment and career opportunities available, the highest priority should be given to technical and vocational education
- Technical and vocational education as preparation for an occupational field should provide the foundation for productive and satisfying career
- Premature and narrow specialization should be avoided
- Technical and vocational education programs should be designed as comprehensive and inclusive systems to accommodate the needs of all learners with special emphasis on motivating girls and women
- Special provision should be made for out-of-school and unemployed youth and children of socially disadvantaged groups such as minorities, migrant workers, refugees, etc. and
- Given the necessity of integrating people who are disadvantaged due to physical and intellectual disabilities into society and its occupations, the same educational opportunities should be available to them as to those without disabilities UNESCO & ILO (2002, pages. 21-22)

2.5 Responding to Changing Socio-Economic Needs

The extent to which a national curriculum relates to national developments might mean that such a curriculum strives for relevance. There are several cases in point. Kenya, Lesotho and Uganda experiences point to intention to offer a PPET curriculum that responds to identified national needs. Research studies indicate that the post-primary school curriculum was transformed in order to improve the correlation of schooling with the world of work. In the case of Kenya for example, subjects such as agriculture, polytechnic, veterinary, trade, ethics, and culture, industrial, home science, art, business and music education were introduced in the curriculum. In Lesotho for example, the introduction of concepts such as education with production and practical subjects were considered a major response to the world of work, whereas in Uganda, the transformed curriculum meant that business, technical and craft as well as religion for moral building are some of the core subjects taught at the post-primary school level. Uganda's determination to introduce such subjects is with regard to ensuring that learners leave the education system with self employable skills. It is not clear from the document analysis whether or not these initiatives have been followed through and the extent to which they have impacted on socio-economic needs.

However, the new thinking in Kenya suggests that this country is probably not satisfied with the current situation. That is, the Kenya Ministry of Education by developing a secondary education strategy, illustrates the determination of some African governments to reform their secondary education systems. In developing the strategy, the Kenya Ministry of Education, having acknowledged the problems within this sub-sector, indicates the way forward in the area of curriculum. For example the new curriculum should: address the needs of the country's labor market, be globally relevant by offering courses such as ICT, equip learners with relevant and up to date technological skills and prepare individuals for either further education, tertiary education or the world of work (Kenya Ministry of Education, 2007).

On the other hand, a study undertaken by SADC indicates that there are concerns regarding the extent to which school curriculum is about to meet requirements in the world of work. For example, a SADC commissioned study revealed that a number of countries are addressing the issue of the unemployed, and sometimes the unemployable school leavers but that some of the member states are still faced with

challenges. On a positive note though, the study indicates that "Botswana and Swaziland have tackled the problem by looking at practical technical/vocational education at secondary education level, enabling school leavers to gain practical skills for example in agriculture, house-building and woodwork ... Their pioneering work may provide useful models to other SADC countries" (Umlilo weMfundo, p.54, 2007)

A strong argument for ensuring that post primary education provides students at the PPTE level with unique skills that would, among others, prepare them for the world of work is clearly articulated in Lewin (2001). This researcher indicates that other researchers and/or authors have found that investment in secondary education contributes significantly to countries' growth. In citing Caillods, (1997), Lewin points out that, "Effective secondary schooling offers access to abstract reasoning and the kind of flexible thinking skills associated with growth-oriented production and new jobs in manufacturing and the service sector, which have an increasing information processing and knowledge content (p.7). Lewin argues that an under-supply of these skills is often seen as a constraint on development of any nation. The African Union adds that science and technology are subjects that need to be considered as highly needed by secondary education students. Hence the view that a major area of curriculum challenge in Africa is that of Science and Technology.

For Africa to entrench a culture of science, technology, research and innovation in its people, the teaching and learning of science and technology must be reformed at all levels, with a special focus on the use of ICTs. Teaching methods should encourage linkages between science and technology on one hand, and with the learner's culture and environment on the other. It is also imperative to significantly increase the participation of girls and women in science and technology education (African Union, 2006, p.13)

In a study on secondary education in Africa, Bregman and Stallmeister's (2003) research findings illustrate that there are a number of obstacles that need to be addressed before a significant change can be realized. Examples include the tendency to rely on rote learning, lack of teaching and learning material and the fact that teachers need to be retrained in different subjects. Ndala (2006) adds that for many years, education systems have attempted to reform secondary education curriculum mainly to include technical and vocational subjects. Ndala (2006), seems to agree with Fafunwa that the costs of teaching and learning materials, the relatively low prestige of technical and vocational subjects also contributes to their low attractiveness. The opinion according to these authors is still widely held that technical subjects are for people whose academic performance is insufficient to cope with a more intellectual course of study. Ndala concludes that research does indicate that technical and vocational fields have a weak track record in meeting the labor markets. This situation, according to Ndala (2006) has led to detachment of technical and vocational training from the secondary education curriculum and instead Sub-Saharan African countries have opted for tertiary program in this regard.

While the idea of introducing practical and/or vocational subjects across the countries that participated in the study was welcomed, given the value that governments attach to vocational subjects, research studies question the procedures followed in implementing new or vocational subjects in Post Primary Education curriculum. This study has established that the procedure followed in introducing new subjects in the school system does not follow established practices. Lesotho is a case in point. It has been established that there is a weak link between practical subjects offered in schools and the requirements of post-secondary training institutions. Moreover, the post primary school program was found to be a patchwork of courses added onto the core subjects (Sebatane et al., 2001)

2.6 Evaluating Secondary Education Curriculum

Research on curriculum evaluation indicates that the length of time allocated for the task provides valuable lessons and that evaluation of curriculum is very critical. The case of Kenya provides a lesson that can be shared with other countries. Kenya for example, subjected the post primary education curriculum to a 15 year period of evaluation. Research revealed that the evaluation conducted over an extensive period of time had impacted on various elements of the education system. For example, curriculum developers used the findings of the study for improving the curriculum.

The case of South Africa illustrates that constant reflection on the reviewed curriculum and prompt response to research findings is valuable. The Government of South Africa introduced what was known as Curriculum 2000 (C2000), an "outcomes-based" curriculum. However, the South Africa Education Department, having been informed about the complexity of the OBE curriculum especially at the classroom level, commissioned another study to review its decision. Research revealed that the new curriculum was criticized as too complicated and over-ambitious because it involved new and seemingly unnecessary complex terminology. Central to its weakness was the fact that it was going to be implemented by poorly educated teachers.

Although education is a complex and deeply contextualized phenomenon, evaluation of a curriculum has to be constantly undertaken. Most importantly, careful considerations of policy that would equip ministries of education with guidelines for addressing research recommendations are critical. The Case of Lesotho in which Sebatane, Ambrose, Molise, Mothibeli, Motlomelo, Nenty, Nthunya and Ntoi (2000) undertook a study on secondary education points to several issues in this context. Their review revealed that several research studies recommend that

- Ministry of Education and Training (MOET) should make the secondary and high-school curriculum relevant to every learner's interest and potential as well as to national and local occupational and social realities. To achieve this it is necessary to develop appropriate policies, and to provide proper guidelines and adequate human and material resources to schools.
- With respect to curriculum diversification, the MOET should come up with a definite policy statement on practical subjects for secondary schools as a guide or reference point for curriculum revision and implementation.
- The current fragmentation of practical subjects, especially in the Junior Certificate (JC) curriculum, should be addressed and greater attention paid to exploring the unique contribution which these subjects can make to the development of general competence in students' communication skills, problem-solving abilities and general creativity.
- Through in-service training, the MOET should enhance the capacity of the relevant role players and units in educational assessment and evaluation.
- It should establish regular evaluation of the capacity of teachers to teach and assess students (p.31-32).

The Ministry of Education and Training has responded to some of the recommendations. There is in place Curriculum and Assessment Policy Frameworks. A large number of recommendations still need to be addressed though.

2.7 Developing and Implementing Policies

Curriculum should be diversified and policy statements on practical subjects should be formulated so that they can serve as reference point for curriculum revision and implementation. To demonstrate that the Republic of Kenya attaches great importance to secondary education, its Ministry of Education has developed secondary education strategy for the period 2007 to 2010 (Ministry of Education, 2007). The secondary education strategy addresses critical issues such as access and equity, quality and relevance, curriculum, guidance and counseling and secondary education for learners with special needs. Significant about the strategy document is the inclusion of monitoring and evaluation of each of the identified issues. This initiative by the Government of Kenya provides a significant lesson for other African states.

The Tanzania Ministry of Science, Technology and Higher Education and the World Bank (2003) notes that while the policies in government documents are well developed secondary education plans are still in draft and that it is not known when they will be fully approved. However, Tanzania Ministry of Science, Technology and Higher Education and the World Bank (2003) proposes that, for Tanzania economy, if it is to compete in the 21st century, needs to, bearing in mind that the quality of education should be maintained, expand secondary education. In order to expand and improve secondary education, it is recommended that a number of approaches should be available. Approaches should include optimal use of existing schools; expansion of the overall number of schools; review teacher placement and utilization; adequate resources for all existing and new schools; develop the potential of distance learning; improve the relationship between school and the workplace; reduction of the unit cost of educating a

secondary school child; support poor families; increasing the number of trained teachers, especially graduates; revision of both the curriculum and textbooks; expansion of the opportunities for the professional development of teachers and review of the current management structure of secondary education.

Cheick and Mariro (2001) propose that in developing and experimenting curricula, there is need to break with the non-professionalism and work according to technical and methodological requirement necessary for a relevant and valid curriculum. These authors make reference to curriculum implementers and point out that paramount to ensuring that teachers are aware of the pedagogical and institutional stakes on which the new curriculum is based, it is important to train them on all aspects of the curriculum. In particular, such training should relate to the implementation of the curriculum.

A study commissioned by SADC advances a number of recommendations in the context of policies and regulations. The study recommends establishment of policies, legislation and strategies to strengthen certain areas such as quality of education in the SADC countries. For example the study recommends that:

- Country level legislation and structures need to be established and strengthened so that incorporation of the *Protocol* into national legislation, regulations and implementation plans are effected. At national level a five education and training plan incorporating the SADC goals, targets and activities, with annual benchmarks for monitoring and evaluation, needs to be developed, with adequate national funding. A universal monitoring framework should be worked out preferably at regional level to ensure consistent monitoring in all countries (p.11).
- Work should continue more vigorously on establishing an acceptable Qualifications Framework, based on the Frameworks already done by the Member States. In particular more details regarding specific disciplines should be worked out. A SADC Qualifications Framework Agency should be set up (p.13).

Umlilo weMfundo (2007).

The Kenya Ministry of Education, Science and Technology (2004) has established numerous problems facing the secondary education sub-sector. These include poor performance in national examinations especially in core subjects such as Mathematics and Science, low participation rates, low transition rates from primary to secondary and from secondary to tertiary. The Government resolved to rationalize and revise curriculum with a view to reducing the load and to, among other aspects, establish a National Assessment System to monitor learning competencies in secondary school in order to enhance the capacity of schools to undertake school based continuous assessment.

Chapter 3 ASSESSMENT

3.1 Introduction

Assessment is considered to have implications for the progress that learners can make towards higher levels of education. Commenting on problems associated with the role of assessment in African education in general, Nenty (1999) argues that assessment is a process of determining the qualitative or quantitative characteristics of behaviours of an individual, thing or event for evaluation or research purposes. He points out that the ability of any system of educational assessment to provide valid and dependable information for effective decision-making depends on its quality. Unfortunately the studies and reports available for purposes of this study do not show how far the quality of assessment has been studied in the countries concerned. The discussion will focus mainly on issues of transition, attempts to reform assessment practices and the role and impact of examinations.

3.2 Transition from primary to secondary

Transition from primary to secondary school is reported to be difficult due to a number of factors. Research and government reports indicate that many children who complete primary education do not gain admission to the post-primary education level, especially to academic secondary education. While there are many reasons for the observed situation, most common among these are that families cannot afford secondary education and that there are too few places in secondary schools to accommodate all applicants. In a situation where space in secondary schools poses problems, education systems tend to screen children through public examinations. Tanzania is a case in point: a few years ago its transition rate from primary to secondary school was between 24 and 28 per cent and entry into secondary school depended on performance in the Primary School Leaving Examination (Tanzania, Ministry of Science, Technology and Higher Education and the World Bank, 2003). However, by 2006 Tanzania had managed to increase the transition rate to 68 per cent (Tanzania, Ministry of Education and Vocational Training, 2007). Similar problems tend to occur at the point of transition from junior secondary to senior secondary education, where examinations are also used to track pupils into academic or technical and vocational programs.

Lewin (2001) emphasizes the importance, in developing countries, of public examinations which tend to increasingly concentrate on lower and upper secondary schooling. He argues that examinations not only determine which pupil proceeds and which one enters the labour market but that they also certify competences which are linked more or less to norms of an international character. National examination boards are linked to international networks of professional examiners, who share many judgements of what constitutes appropriate outcomes at a given level of schooling in particular areas. Cross-national studies, Lewin argues, provide evidence of achievement against common yardsticks. He concludes that achievement against a common yardstick can provide an impetus for change directed towards common sets of outcomes. Several international research studies have expressed similar concerns. Cheick (2003) makes reference to transition, schooling and access issues. Despite the fact that secondary education is, according to Cheick, a natural setting for enhancing the cognitive, socio-emotional and psychomotor functions in the process of building the person, African education systems are still selective and in the process they deliberately limit attendance at the secondary level. In addition, as reported by Bregman and Stallmeister (2003), examinations tend to affect the content and skills covered in schools. The tendency for teachers is to "teach for the examination" and this often encourages rote memorization. In such a situation pupils are likely not to fully acquire skills needed in the world of work because their focus is on passing the examination.

The situation is aggravated by the influx from primary school as a result of the implementation of the Education for All world agreement. Kenya and Lesotho are cases in point. Secondary education in Kenya has been criticized for poor performance, mainly in core subjects such as Mathematics and Science. A number of factors are contributory to that situation. These include shortage of teachers and also the overburdened programme. Sebatane (1998), writing about the situation in Lesotho, indicates that

"educational assessment in Lesotho is dominated by public examinations, the main function of which is certification and selection (p.265). He shares the Lesotho Ministry of Education and Training's plan to improve the quality and efficiency of public examinations which would include shifting from normreferenced to criterion-referenced measures. Among the weaknesses identified is the fact that the majority of the people who handle the Lesotho Primary School Leaving Examination (PSLE) and the Junior Certificate (JC), including members of the inspectorate who are mandated to provide necessary guidance to teachers on the ground have no formal training in assessment. The situation has not changed much since 1998 being the time during which Sebatane reported his research findings.

The studies seem to suggest that critical problems that need to be addressed if the issues of transition are to be fully attended to include the type of examinations that students have to write and the capacity of the teachers who set and mark examinations.

3.3 Examinations and what they measure

Research has established that the tendency for examiners is to structure examinations such that they focus on the cognitive domain. Doing so is at the expense of other domains even though they may be catered for in a curriculum. It has to be noted though that valid assessment of affective domain is difficult much as failure to assess performance tasks is also a weakness of the examinations in use. Lesotho illustrates the tendency to assess the cognitive domain. Whereas the curriculum incorporates the development of cognitive, affective and psychomotor abilities, the public examination has been found to mainly measure the cognitive abilities and in the process neglecting some educational goals and important curriculum objectives. In grading, theory is given more weight than practical skills. However while this experience may be common among countries such as Lesotho, it may not be exactly the same across all countries that participated in this study given that examinations are guided by the curriculum objectives.

Despite developments in the education systems, the problems associated with transition continue to be one of the major challenges to most countries. While secondary education remains in demand, accessing it remains a challenge for most governments that participated in the study. Public examinations have been found to be one of the main causes of the low transition rates.

3.4 Innovations

Responses to recommendations advanced by research vary from one country to the other. Lesotho poses a good example. Lesotho, after several years of an outcry for a policy on curriculum and assessment, now has in place a draft policy framework in that regard. In developing Curriculum and Assessment Policy Framework the Ministry of Education and Training (2007indicates for example that:

- Curriculum content distortion by examinations does not seem to tally well with the goals of expanded access to vocational skills training, life long learning and increasing awareness on emergent and emerging global issues such as functional knowledge on crippling effects of HIV/AIDS, deteriorating climatic and environmental elements, and others. To address such challenges curriculum and assessment should be reviewed within the current and anticipated future demands on the educational systems, particularly in relation to the demands of the current global world.
- The policy Framework on Curriculum and Assessment is striving towards approaches that place primacy on survival of a learner, not only in his/her daily school routine but also as a member of a broad community life, today and tomorrow, locally and globally. To this end the Ministry notes the need to catch up with renewed recognition of the decisive role educational system plays in fostering relevant and positive social attitudes and civil values and as a self emancipation tool from everthreatening harnesses of poverty, needs and diseases. This involves acknowledgement of a need to root teaching/learning content and processes in the philosophical environment of a child while widening both teachers' and learners' scope towards independent and critical high order thinking and other related skills necessary for the competitive world "out there.

(Lesotho, Ministry of Education and Training (2007, p.3)

During the reporting of this study the Lesotho Curriculum and Assessment Policy Framework had not been implemented yet. It is anticipated that once implemented, this policy will help Lesotho realise its intention towards improving assessment modalities.

The implementation of continuous assessment at the classroom level has also been a subject of research. Research has revealed that teachers are one of the contributory factors to failure to fully implement continuous assessment. Teachers do not have the skills of helping ministries of education to fully realize the objectives of continuous assessment. The case of Namibia is cited. A study undertaken in Namibia on continuous assessment established that teachers were implementing this aspect of assessment fairly well but that there remained a considerable gap between policy intentions and classroom practice, especially with regard to planning in the areas of curriculum and assessment. The Namibian based research on continuous assessment recommends that there is need to ensure that there is adequate planning prior to the actual implementation of such policies. Commenting on Continuous Assessment (CA) in Lesotho, the Ministry of Education and Training (2007), indicates that CA has been undertaken in practical subjects but has been mainly targeted towards examination requirements and not necessarily to promote self-reliance. Trial testing of CA in subjects like science raised concerns over issues of reliability and validity impeding implementation. Eventually, the system of national continuous assessment appears to have been abandoned.

However, the Policy Framework on Curriculum and Assessment (CA) clearly spells out the Government of Lesotho's intention, though the Ministry of Education and Training, to improve on this situation. Accordingly, CA will be conducted in schools at all levels of education to check the learning progress. Most importantly, CA will be used by teachers for diagnosis of learning difficulties to identify areas needing remediation. Additionally, marks of CA results will be used to monitor the performance of learners while national assessment will assess the performance of the educational system (Ministry of Education and Training, 2007).

3.5 Monitoring and assessment

On monitoring and assessment Bregman and Stallmeister (2005) conclude that weak monitoring and assessment systems remain major obstacles for improved learning outcomes at the secondary school level. They report that considerable reliance has been placed on public examinations to ensure that the common curricula are covered. The examinations affect the content and skills covered in school, and teachers gear their teaching to the examinations, which tend to encourage rote memorization. Unqualified teachers who are often unfamiliar with assessment terminology and process require in-service training. The authors argue that a study on monitoring and assessment should explore the impact of assessment and examination systems on secondary education and discuss ways to transform examination systems into a tool for improving the quality and relevance of secondary education.

Ondongo (Construction of tests for claiming assessment, are teachers up to the task?), in his study on construction of tests for classroom assessment, questions the extent to which teachers are prepared for the task of assessing students, pointing out that his research has revealed that:

- Test items used in classroom assessments tend to emphasize low order skills,
- Test papers used in classroom assessment showed lack of originality since teachers heavily rely on external past paper questions in the tests,
- Results from such tests are likely to yield wrong information on student achievement since past papers are freely available to students,
- Classroom assessment tests have quality problems in that questions with ambiguity are used, reflecting lack of item construction techniques,
- Teachers are not grounded in assessment techniques and yet they are expected to be.

Ondongo (Construction of tests for claiming assessment, are teachers up to the task?)therefore recommends that at the school level, teachers of a subject should set up review panels to moderate test items for use in classroom assessment to improve test quality with regard to objectives, skills and clarity of questions. Teachers should regard assessment as an important and integral part of the teaching learning process because

of the known benefit of assessment, and, therefore, put more thought and time in construction of tests. Ondongo calls for deliberate efforts on the part of the institutions that prepare teachers to strengthen the assessment component of their training.

ADEA (ADEA stocktaking review-curriculum reform and development in Namibia reflecting equity, access and quality), in its report on stocktaking in Namibia (ADEA stocktaking review-curriculum reform and development in Namibia reflecting equity, access and quality), indicates that the examination outcomes were very encouraging and they provided valuable information for curriculum development and teaching. ADEA seems to suggest that focused continued monitoring of the curriculum performance in the classroom would provide data towards refinement and updating of assessment systems. With reference to Lesotho, however, Sebatane (1998) concludes that for both Primary School Leaving Examination (PSLE) and Junior Certificate (JC) examinations, the reporting of results does not reflect the candidates' skills and competencies because the marks are presented as normative data comparing individual students' performance with those of their colleagues and the results of assessment carried out in technical and vocational institutions are hardly announced publicly.

Innovations have been attempted in the area of policy formulation and implementation of continuous assessment in secondary education. But a full realization of the innovations has been affected by the extent to which implementers, particularly teachers, are fully equipped with skills needed for the realization of the objectives of such innovations.

3.6 Monitoring and Control Mechanisms

The presence of institutions that monitor standards is closely related to the existence of qualifications frameworks. Umlilo WeMfundo (2007) revealed that there was consensus regarding the need for a joint Qualifications Framework. Such a Framework will enable SADC institutions to deliver services which are of a high and uniform quality. Credits would be recognized, and this would enable student to do parts of their degree programs in different countries. Umlilo WeMfundo (2007) recommends that

- Work should continue more vigorously on establishing an acceptable Qualifications Framework, based on the Frameworks already done by the Member States. In particular more details regarding specific disciplines should be worked out;
- A SADC Qualifications Framework Agency should be set up.

The Ministry of Education in Kenya in its secondary education strategy makes reference to student assessment. There is an existing policy in this regard. Reference is also to the 8.4.4. education system and that the position, regardless of the new developments will not change (Ministry of Education, 2007).

The Republic of Tanzania through the NACTE and VET has in place control mechanisms. The Republic of Tanzania controls quality in the vocational and technical education through the production curriculum and practicals, develops assessment procedure based on modular approach, designs quality control system and institutes academic audit.

The extent to which initiatives such as those reported about Kenya and Tanzania have been contributed to quality assessment procedures have not been reported in the literature reviewed. Lessons learned from such developments could be used, depending on their viability, by other African education systems.

There have been some notable efforts aimed as transforming technical and vocational education in Uganda. The Government of Uganda formulated a policy framework on TVET with the purpose of setting in motion a profile for revisiting existing occupational profiles as well as developing new ones with a view of drawing up more relevant training programs with involvement of the private sector particularly in the areas of agriculture, business, crafts, industry, health services and tourism. However, little has been done to increase the number and improve assessment practices; currently only the Uganda National Examination Board is responsible for the assessment of academic achievement implying that this body is also responsible for assessment of the TVET system.

ADEA – 2008 Biennale on Education in Africa Review of the State-of-the Art in Post-Primary Education and Training (PPET) in Eastern and Southern Africa

Some researchers writing broadly about assessment practices in Africa have expressed concern about this Continent's ability to fully address challenges facing education systems in the context of assessment. Based on his research findings on assessment practices for example, Nenty (1999) recommends that if Africa is to meet educational assessment demands, education in most African countries needs overhauling, retooling or serious reform. This exercise in turn needs valid input from educational assessment in defining, achieving, maintaining and assessing the processes and products of attempts to achieve these priorities in African education. In his view, "assessment, along with research in education, has to improve the quality of information and data it provides stakeholders for formulation and implementation of policies in education (p.52).

Chapter 4 Conclusions and Recommendations

4.1 Conclusions

4.1.1 Curriculum

The review on the state of the art indicates that studies focused on innovations, curriculum diversification, curriculum evaluation and response to the socio-economic demands. A relevant curriculum for Post Primary Education and Training (PPET) should focus on academic and practical and/or vocational subjects, generic skills such as analytical and problem solving skills, if it is to prepare students for a working life and good performance in academic institutions. Failure to equip students with relevant education, particularly in the remote areas where learners have numerous challenges such as, having to head families due to the HIV and AIDS devastation, is a major setback at this level of education. There is therefore a need for equitable exposure in the early years of secondary education to a program that will respond to the PPE learners. Studies and reports reviewed for the purpose of this study indicate that,

- Despite their varying historical backgrounds and the times during which they attained independence, countries that participated in this study have been affected by their previous regime education systems. On the one hand intensive efforts were engaged in reforming curricula so that it responds to national developments and needs. On the other, governments have been very slow in reforming curriculum beyond the first initial reform activities. In this regard, curricula have been found to promote rote learning and few opportunities for learners to transfer and internalize knowledge and also to acquire skills needed in the world of work.
- Curriculum is still criticized for being heavily examinations driven. The studies revealed that some government's revised curriculum with a view to reducing the load and at the same time established National Assessment Systems to monitor learning competencies in secondary school. However, this study could not establish the extent to which these institutions have impacted on curriculum implementation and assessment processes.
- Curriculum development, implementation and monitoring are managed by institutions that are charged with this responsibility. These institutions are supposed to serve as modelers of research and policy implementation. However, information on the extent to which activities of such institutions have been evaluated is however scarce.
- Developing and implementing curriculum has been found to be a complex undertaking. Curriculum developers and implementers hardly receive training that would empower them with skills for transforming and implementing new curricular of any type. It is important to ensure that curriculum developers and teachers are aware of the "pedagogical and institutional stakes on which the new curriculum is based". Failure to empower this human resource negatively affects the implementation of new curriculum.
- Lack of financial resources tends to negatively affect the implementation of reviewed curriculum. This is particularly true in the case of implementing science based subjects, technical and vocational and/or practical subjects.
- Significant change that has been realized in some of the countries that participated in the study has been with regard to formulation of policies. These policies were formulated as a result of research based recommendations. However, the extent to which such policies have been implemented and their impact on the Post Primary Education System is not clearly revealed in the reviewed documents.
- Infusion of new curriculum topics is done in an uncoordinated manner resulting in overloaded curriculum. Moreover, the uncoordinated strategy for infusing new curriculum contributes to overloaded curricula and the tendency to revert to old curricula or abandoning new ideas.

4.1.2 Assessment

Numerous problems of assessment facing the secondary education sub-sector have been found. These include poor performance in national examinations especially in core subjects such as Mathematics and Science, low participation rates, low transition rates from primary to secondary and from secondary to tertiary. It has been found that

- Institutions that have been set up to be responsible for assessment have, among their significant responsibilities, the management of standards. Hence the presence of qualification frameworks in most of the countries that participated in this study.
- Some countries have in place assessment policies to guide the implementation of assessment activities at country level. The extent to which these institutions are positively influencing change in assessment practices is not clear.
- The introduction of new subject areas impacts on assessment practices. For example, the introduction of new practical subjects such as woodwork mean changes in assessment practices because assessing practical and/or vocational subjects require that examinees exhibit skills and/or competencies acquired.
- Teachers lack skills in assessing learners at classroom level and in implementing new assessment practices such as continuous assessment.
- Public examinations play a major role on the extent to which students transit from one level of the education system to another. Innovations observed in countries such as South Africa where learners are allowed to proceed with their cohort can only be implemented up to a point. Students still have to write external examinations which determine the extent to which they are admissible in institutions of higher learning.
- Performance in public examinations is a major contributory factor on the movement of students from one level of education to another.
- Inadequate school facilities at secondary school level affect the extent to which a large population of students can be admitted into this level of education. This problem is aggravated by the influx of students from the primary schools to secondary schools which might be due to the implementation of the Education for All intervention.
- Shortage of teachers in key subject areas such as science contributes to the rate at which students can transit to other levels of education systems.
- Full realization of continuous assessment as a form of innovation has been affected by the extent to which implementers particularly teachers are fully equipped with skills needed for the realization of the objectives of such innovations.

4.2 RECOMMENDATIONS

4.2.1 Curriculum

Based on the findings on curriculum, the following recommendations are made:

- Pay attention to the availability of up-to-date curricula, teaching and learning support materials if the current scenario where new curricula are implemented using traditional teaching and learning materials is to be addressed.
- Education ministries and regional and African institutions such as the African Union and the Southern African Development Community research and plans are a direct observation of the need to improve secondary education offerings. For proper implementation of such plans, substantial attention needs to be paid to equipping and supporting teachers with relevant skills for implementing curricula at classroom level.
- Ministries of Education need to pay special attention to implementing research findings promptly. Delays in doing so affect the relevance of research. Furthermore, policies on diversifying curriculum especially as regards practical subjects need special attention. There is need not only to formulate policies and legislation but to develop strategies for the implementation of policies on curricula.

- Developing and implementing vocational and technical education at the secondary school level appears to be considered a necessary form of education if work related skills are to be realized. Governments need to seriously explore the need to introduce relevant curricula changes and explore possibilities for providing more and better learning materials in this regard.
- Governments have to review their curricula with a view to overhauling them. Overhauling the curriculum means realizing the fact that curriculum is not static. New subjects and topics can only be authentically introduced in the curriculum if drastic measures are taken to change curriculum as has been contemplated in a number of countries.

4.2.2 Assessment

The major finding at both national and international levels is that transition from primary to secondary school is a major problem experienced in the various education systems. There are a number of factors that impinge on transition rates. The facilities at secondary school level are not adequate to admit a large number of students. Therefore examinations contribute towards a large number of students who can be admitted into secondary education. The fact that facilities are not adequate indicates that the influx of learners resulting from the implementation of the Education for All cannot be admitted into this level of education. Shortage of qualified teachers to teach the key subject areas such as science and technology contribute to the rate at which students can transit to other levels of education.Based on the findings relating to assessment, the following recommendations are made:

- Examinations are used to control the number of students who can proceed to secondary school. Assessment procedures followed rely heavily on public examinations even in countries that practice continuous assessment. The education ministries' approach to assessment should be to implement, through their structures, assessment techniques that will benefit the learners at this level where they are likely to join the world of work.
- There is general agreement from studies and reports that whilst assessment is the only mode of establishing the extent to which learners have acquired knowledge and skills needed for further education or, for movement to the world of work, much more needs to be done to improve the assessment practices in post primary education.
- Policies and modalities for assessing practical subjects need to be developed and implemented. There is need to involve organizations such the Southern African Consortium for Monitoring Education Quality (SACMEQ) to assist in developing modalities for assessment at secondary school level.
- A full realization of the innovations has been affected by the extent to which implementers particularly teachers are fully equipped with skills needed for the realization of the objectives of such innovations. Intensive training of teachers on assessment is paramount to reforming assessment practices.

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