# Managing equitable assessment practices in Distance Education: Implications for higher education institutions in Namibia

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## Abstract

Lecturers tend to assume that their carefully crafted resources will guide student learning and that students will work through our materials more or less in the manner directed. However, research into distance students' use of study materials (Merland et al, 1990) and the use of formative activities (Lockwood, 1995) suggests that there are far more complex behaviours at work. The amount of support services an institution can offer largely depends on that particular institution's capacity and resources at its disposal. For ODL to be effective, effective management and administration systems need to be put in place. It is particularly important to make sure that ODL students are not isolated though they may be at a distance. An effective system of two-way communication between student and institution is therefore an important element of good management and administration.

Key words: Open and distance learning; Assessment; Learner support; Communication; technologies.

## Introduction

Many different researchers have applied the term "distance education" or "distance learning" interchangeably to a great variety of programmes, providers, audiences and media. Its hallmarks are the separation of teacher and learner in space and/or time (Perraton, 2001), the volitional control of learning by the student rather than instruction (Jonassen, 1999), and non-contiguous communication between student and teacher, mediated by print or some form of technology (Greenberg, 2000). Michael Moore (2002) defines distance education as planned learning that normally occurs in a different place from

teaching and as a result requires special techniques of course design, special instructional techniques, as well as special organisational and administrative arrangements, while Desmond Keegan (2000), declares that distance education and training result from technological separation of teacher and learner. Separation of the student and the teacher is thus a fundamental characteristic of distance education.

If distance education is to be successful, then it is imperative that distance education systems be designed to permit equivalent learning experiences for distance and fulltime students. However, the unique characteristics of distance education do not only pose challenges for learning, but also to effective assessment. The usefulness of many of the assessment approaches available for the conventional lecture room is limited for distance education, mainly because of the lack of control of assessment conditions, the unique set of available resources, and the inherent isolation of the distance student (Suen, 2005). Assessment must however be an integrated and transparent component of the instructional process. If extensive effort and resources go into designing activities that measure higher order thinking, but the instruction does not guide students in achieving the required level of cognition, the assessment will fail (Simonson, 2003). Students need therefore be aware of the purposes and implications of different assessment tasks, especially the opportunities provided for them to show the extent to which they have achieved the intended learning outcomes (Airasian, 2001).

Equitable assessment on the other hand means that students are assessed using methods and procedures most appropriate to them. These may vary from one student to the next, depending on the student's prior knowledge, cultural experience, and cognitive style (Suskie, 2002). Creating custom-tailored assessments for each student is, of course, largely impractical, but if we are to draw reasonably good conclusions about what our students have learned, it is imperative that we make our assessment, and our uses of the results as fair as possible for as many students as possible.

Assessment has thus become a challenge to those working with distance education. In its definition of learning assessment, Bloom, Hastings and Madaus (Mendes, 1998), proposed that the assessment process should include a great variety of evidences that go beyond the traditional final pencil and paper based examination. In a face-to-face context, lecturers use more than just formal mechanisms to assess students. Body language, participation, and

quality of questions proposed by students are good indicators of learning. Because of the lack of accessible mechanisms that can assist instructors in assessment only formal mechanisms are applied.

> The diverse characteristics of students in Namibia, in general and of distance learners in particular, cannot be ignored when designing assessment processes and when selecting assessment instruments. The success of distance learning programmes in higher education in Namibia depends on management policies and initiatives that are sensitive to the needs of the students, while also addressing wider acceptance in the academic community (Simonson, 2003).

> The aim of this study was therefore to investigate the issue of fair and equitable assessment practices at the University of Namibia in order to conceptualise the possible design of an assessment management model that ensure equitable and effective student learning for both full-time and distance learners in higher education in Namibia.  As a quantitative approach was followed, a strategy of inquiry was employed using data on predetermined instruments (structured questionnaires) that yielded statistical data. Both fulltime and distance education students at the University of Namibia were randomly selected to participate in this study.

## *FINDINGS*

## *Profile of UNAM students*

Regardless of the method of delivery, programmes were dedicated to identifiable standards that guided assessment and any impact on programme structure and pedagogy that aroused from technological innovation. This represented a substantial challenge to the process of setting and applying equitable standards. These standards needed to be clear enough to guide evaluation and assessment, yet broad enough to accommodate a variety of models and innovative approaches to teaching and learning.  Lecturers who teach at a distance were faced with challenges such as insecurities founded in

financial costs of study, disruption in family life, perceived irrelevance of studies and lack of support from employees, lack of communication (feedback or contact) between lecturer and student, lack of support services such as tutors, libraries, counselling services and technical services, and feelings of alienation and isolation.

The Cambridge advanced learner's dictionary (2005) defines the word communicate as "to share information with others by speaking, writing, moving your body or using other signals". This "sharing of information" in higher education takes the form of teaching, assessment and feedback. Moore (2003) argues that a communication gap leaded to a space for potential misunderstanding between the inputs of the instructor and those of the learner. Otto Peters (1993) emphasises "self-study and increased telecommunications" while Holmberg (2001) is in favour of a conversational approach. Keegan (1986) agrees to these theories of interaction and communication and called it "the use of media to connect teacher and student".

Simonson (1990) argues for equivalent learning experiences "that are tailored to the environment and situation in which the students find themselves". Those developing distance education systems should thus strive for equivalency in the learning experiences of all students regardless of how they are linked to the resources or the instruction they require. The UNAM Students had access to computers, internet, e-mail, libraries, telephones, tape players and televisions, yet they did not have much communication with their lecturers. Regardless of delivery mode, students in higher education are seen as adults. They want to learn experiences they can relate to, and most of all, learning experiences that add value to their lives.

## *Methods of Assessment*

UNAM lecturers mostly used writing of essays, research projects and written examinations as methods of assessment. One should however be careful not to keep to one traditional assessment method while assessing different kinds of competencies and different learning outcomes. In addition, students rated their study guides as either excellent or good. Lecturers should also be careful not to assume that their carefully crafted study guides will guide student learning. Nor should lecturers assume that students will work through their study guides in the manner directed. Students are many times guided by the assessment activities instead. The challenge for lecturers remained creativity in

the choice of assessment methods. In the end, the emphasis should be on the creation of personal meaning and divergent thinking so assessment can reflect what students learn and can do.

Different assessment techniques will also allow lecturers to develop a broader picture of the students from a wider range of sources of evidence. A greater array of criteria is applied than those that fit the narrow context of examinations and tests. These approaches to assessment would consistently have involved formative assessment, during which learning would have been guided and assisted based on diagnostic methods of assessment. Authentic assessment would then not just include measurement of a learner's performance but also guidance, multiple chances to improve competence and performance, and a variety of techniques that would provide learners with a range of opportunities to develop and demonstrate what they know and are able to do.

## *The relationship between assessment and learning*

How the lecturers assessed, influenced the way in which students approached learning. Often students second-guessed the assessment and used that as their syllabus. They will under appraise requirements if the assessment tasks allow them to do so. Lecturers should use this focus of the students on assessment by ensuring that the true curriculum is in fact reflected in the assessment tasks. In aligned teaching, the assessment intensifies learning and becomes a senior partner in teaching and learning.

Although the UNAM students reported that assessment was linked to the subject aims, objectives and content in the study guides, it was not structured to suit prior experiences of the students or allowed them to monitor and improve learning. In addition, students were disadvantaged by their social circumstances and the fact that assessment requirements were not made clear to them.

## *Assessment output*

Education is understood to be a meaning-making business carried out through human interaction based on communicative rationality (Luckett, 2000). Assessment therefore is understood as to be an interpretative, human exercise based on professional dialogue and judgement. If assessment is understood

to be dialogue and a meaning-making process, then we need to build the context into the picture and take it into account when judgements are made. A consequence of this position is the conviction that the closer assessment is to the teaching and learning process, the more valid, accurate and fair it is likely to be. The UNAM students were not provided with sufficient resources to do their assessment activities, nor did they have appropriate and consistent interaction with their lecturers.

## *Finding 5: Feedback to students – Assessment for and of learning*

As indicated before, the purpose of the assessment should determine its design and how to respond to students. Clearly different kind of responses are appropriate for different purposes, for example relaying a grade (summative purpose), giving and justifying a grade (summative and formative) and helping students to learn (formative) all require different forms of feedback.

Feedback that contributes to learning:

- Make links with the student's goals and intentions;

- Set criticism in a context of appreciation of and respect for the student;

- Give positive comments prior to giving negative comments;

- Provide rich, descriptive and detailed comments which are justified in terms of agreed-upon assessment criteria and based on evidence from the student's work;

- Provide feedback in time for it to be meaningful to student learning; and

- Avoid giving a score or grade without providing some qualitative justification for it.

Feedback is thus a means of communicating with students.

## *RECOMMENDATIONS*

Many educators continue to question the equivalency of distance education to

traditional education. With the growing integration of technology in education, it seems possible though that the differences between distance education and traditional education will diminish rather than increase. The mission of any educational system should be to focus on creating an educational event that causes a marked and sustainable change in behaviour in students. Since knowledge about students, learning and assessment, in addition to the design of curricula, contribute to assuring quality higher education in both traditional and distance education, time, location and pace of study become less important as indicators of quality instruction. Knowledgeable educators who understand students and learning will continue to be the key to assuring quality in higher education, whether distance or fulltime. The question is not just whether students learned the same information any better through distance learning or at less cost than through regular classroom instruction. The overlooked and better question is, 'Did something happen in this particular learning environment?' In other words "Was the education *effective?*"

## *The introduction of Mobile learning (M-Learning)*

Mobile communication devices offer a unique opportunity for lecturers and students through different kinds of instructional settings. Instructional settings cover the flexibility and freedom afforded by these devices. Furthermore, they conceive new pedagogies and new approaches to deliver and facilitate instruction (Sethy, 2009). An appropriate instructional design and its facilitation in mobile learning can benefit students in many ways. For example, they can receive materials in digital mode, they can browse materials as and when they are free, and they can interact with their peer groups, and with their lecturers.

The most significant aspect of M-Learning is that students can learn and interact while on the move. They can be informed and, hence, update themselves by receiving SMS/MMS from the institution, which is very cost effective and affordable. In this context, Vavoula (2005) argues that it is imperative for the instructors to learn and adopt the changing environments when and where it is appropriate. Mobile technologies can have a huge impact on the learning environment in any educational setting.

In addition, Mobile devices allow people to access the web and e-mail from any location. Students can play the audio and video files on their mobile

devices and transfer them to other mobile devices. Therefore, peer group interactions continue to exist. Instructors can make better use of the limited time and provide the information that provokes learners' thought through mobile devices. Social websites like face book and twitter are ideal to use for discussions and the sharing of ideas and information. Podcasting enables instructors to incorporate on demand audio recordings into their curriculum. Mobile learning capabilities will continue to expand with the introduction of linear, smaller, more sophisticated and powerful gadgets capable of delivering data in various formats to any place in no time.

## _The Development of Cloud works_

Cloud works is a social networking site for finding, sharing and discussing learning and teaching ideas and designs. Anyone can create a cloud at cloudworks.ac.uk on the internet. There are two key concepts associated with Cloud works - the notion of 'Clouds' and 'Cloudscapes' (cloudworks.ac.uk). A Cloud can be anything to do with teaching and learning. Each Cloud is 'social' in that it is possible to have a conversation around the Cloud. A Cloud could be: a short description of a teaching and learning idea, information about resources or tools for learning and teaching, detailed learning designs or case studies of practice or a question as a starting point for a discussion.

Clouds can be aggregated into 'Cloudscapes' associated with a particular event, purpose or interest. For example you can have Cloudscapes associated with a conference aggregating Clouds about conference presentations or tools and resources referenced. A Cloudscape can be set up for a workshop where Clouds might include workshop resources, tools or activities. Cloudscapes can also be more general for example to stimulate debate about a particular teaching approach. Clouds can be associated with more than one Cloudscape.

## _The Introduction of a Computerized Student Assessment Management System (SAMS)_

The computerised Student Assessment Management System (SAMS) is the researcher's own idea of a computer software programme that could be programmed to centrally store a database of all assessment related activities at the University. Assessment related activities include institutional objectives, programme objectives, course objectives, assessment objectives, assessment
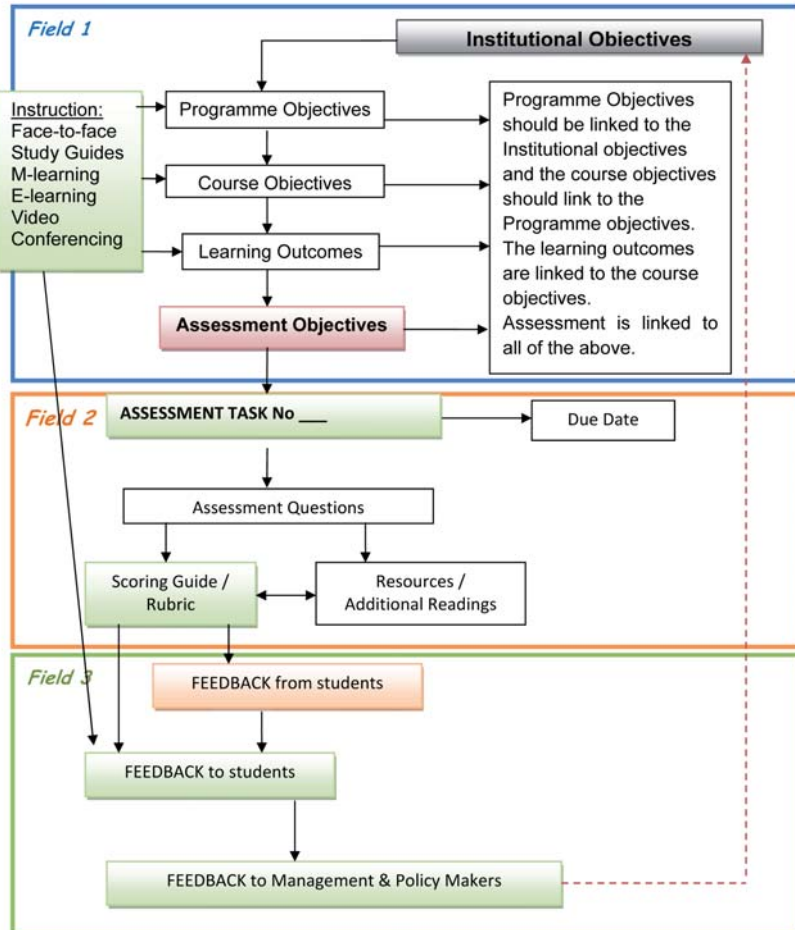
activities, rubrics, feedback, and assessment reports.

A computerised student assessment management system (SAMS) will allow the institution to have clear academic goals be the cornerstone of what we choose to assess so that the data we collect will have educational value to academics, administration, and the communities we serve. In addition, the system will allow academics to:

- Think in advance about how the assessment information will be used, and by whom, so that the information will be connected to issues or questions that people really care about.

- Recognize that learning is an extremely complex process calling for a variety of assessment tools that must be used over time so as to reveal change, growth, and increasing degrees of integration.

- Develop formative, ongoing assessment that entails a linked series of activities undertaken over time.

- Assess the assessment process itself to refine it in the light of insights gained.

The diagram illustrates what the SAMS should do:

The name of the Course comes here

**Field 1**

Institutional Objectives

Instruction:
Face-to-face
Study Guides
M-learning
E-learning
Video
Conferencing

Programme Objectives

Course Objectives

Learning Outcomes

Assessment Objectives

Programme Objectives should be linked to the Institutional objectives and the course objectives should link to the Programme objectives. The learning outcomes are linked to the course objectives. Assessment is linked to all of the above.

**Field 2**   ASSESSMENT TASK No ___    Due Date

Assessment Questions

Scoring Guide / Rubric

Resources / Additional Readings

**Field 3**   FEEDBACK from students

FEEDBACK to students

FEEDBACK to Management & Policy Makers

## Student Assessment Management System

The first field is developed as a template and should be available on the system, preferably on the same screen so you can have the whole picture with one glance.  A click on the different sub-fields should take you to detailed descriptions of the sub-field, for example if you click on the sub-field "Instruction", you should go to a page where the type of instruction is fully explained.  If more than one method of instruction is used, all methods should be entered into sub-fields and explained fully.

The second field needs to be done for every assessment task. Whether the assessment is for diagnostic, formative or summative purposes, it is important to determine what "good work" means. Setting up criteria before the assessment is done and sharing these criteria with students ensures that the scoring will align with the instruction and that the criteria can be used to guide student learning as well as assess it. This makes scoring a critical link in the constant interplay between assessment and learning.

The third field deals with feedback from students, feedback to students and feedback to the University Management, Policy Makers and the Public. Feedback is information that can be written or oral and should focus on helping important areas of strengths and weaknesses. Feedback should provide a student with information on how to improve. Feedback answers the "what do I need to know?" questions about the work and should be positive as much as possible. Guidance, which should follow feedback, is giving directions on what to do in order to improve. Guidance answers the "How do I improve my work?" questions that students may often not ask.

When using the SAMS programme, lecturers should indicate how feedback will be provided. If feedback is provided using cloud works for example, the student should click on "cloud works" and be able to get the feedback there. Feedback to individual students can be password protected so other students are not able to read personal comments.

Teaching, learning, assessing and feedback are all part of a process that needs all the elements in order to work effectively. Assessment is not the final point of teaching and learning, but should be used to guide and direct teaching and learning. This is done through the analysis of what has taken place, and thus a new cycle of teaching and learning starts. Feedback to the university management and policy makers is therefore important to evaluate and improve teaching and learning.

## *The Development of an Assessment Model for the University of Namibia*

Research demonstrates that student achievement is increased when assessment features good feedback to students about their performance, sets clear standards for learning, is ongoing so it can be used to monitor student growth and progress, and is used to modify instruction to meet the needs of the student (Butler, 2006). Such assessment practices promote assessment for learning rather than assessment of learning. Assessment for learning requires that assessment occur regularly and that the information gained is used to shape teaching and learning. In addition, assessment for learning helps students identify the strengths and weaknesses in their performance so that they can improve their achievement. It is differentiated from assessment of

learning, which simply provides a means of rating students, or comparing them one to another.

In order to integrate assessment into the teaching and learning process, Stiggins (2001:19) suggests the following:

- To assess student achievement accurately, academics and administrators must understand the achievement targets their students are to master. They cannot assess achievement that has not been defined.

- Assessment literacy comprises two skills: the ability to gather dependable and quality information about student achievement; and the ability to use that information effectively to maximize student achievement.

Recognising that assessment is complex and needs careful management, the following criteria is recommended to be included in an assessment model for the University of Namibia:

(i) Educational standards specifying what students should know and be able to do should be clearly defined before assessment procedures and exercises are developed. For assessment information to be valid and useful, assessment must be based on a consensus definition of what students are expected to learn, and the expected level of performance, at various developmental stages.

(ii) The primary purpose of the assessment system should be to assist both educators and policy makers to improve education and advance student learning. The assessment system should be designed to provide not just numbers or ratings, but useful information on the particular abilities students have or have not developed.

(iii) Assessment standards, tasks, procedures, and uses should be fair to all students. Individual assessment results often affect a student's present situation and future opportunities. The assessment system and the standards on which it is based should therefore treat students equally. To ensure fairness, students should have multiple opportunities to meet standards and should be able to meet them in different ways.

(iv) The assessment tasks should be valid and appropriate representations of the standards students are expected to achieve. A sound assessment system provides information about a full range of knowledge and abilities considered valuable and important for students to learn. A variety of assessment methods is therefore required.

(v)    Assessment results should be reported in the context of other relevant information. Information about student performance should be one part of a system of multiple indicators of the quality of education.  Multiple indicators permit educators and policy makers to examine the relationship among context factors (such as type of community, socio-economic status), resources, programs and processes, and outcomes.  Statements about educational quality should not be made without reference to this information.

(vi)   The assessment system should be subject to continuous review and improvement.  Large-scale, complex systems are rarely perfect and even well designed systems must be modified to adapt to changing conditions.

The following is an example of a model comprising four different levels with a number of elements at each level, though not exclusively so.  Level one is where assessment actually happens, with assessment practices occurring in the context of students' and lecturers' experience of assessment and dependent on effective course design.  Level two supports this practice and includes the elements of staff development, departmental procedures, programme design, and innovation.  Level three represents the institutional context of assessment, where resources are allocated, principles, policies and regulations are determined, and processes for recognizing and rewarding good teaching are put in place.  Level four represents the overall context of the institution, including government policies and the expectations of external bodies. The model also includes functions that cut across these four levels, namely leadership, management and quality assurance.

The model is graphically represented by the figure below:



KEY:

| Level 1: Course Design | Level 2: Programme Design | Level 3: Institutional Context | Level 4: External Context |
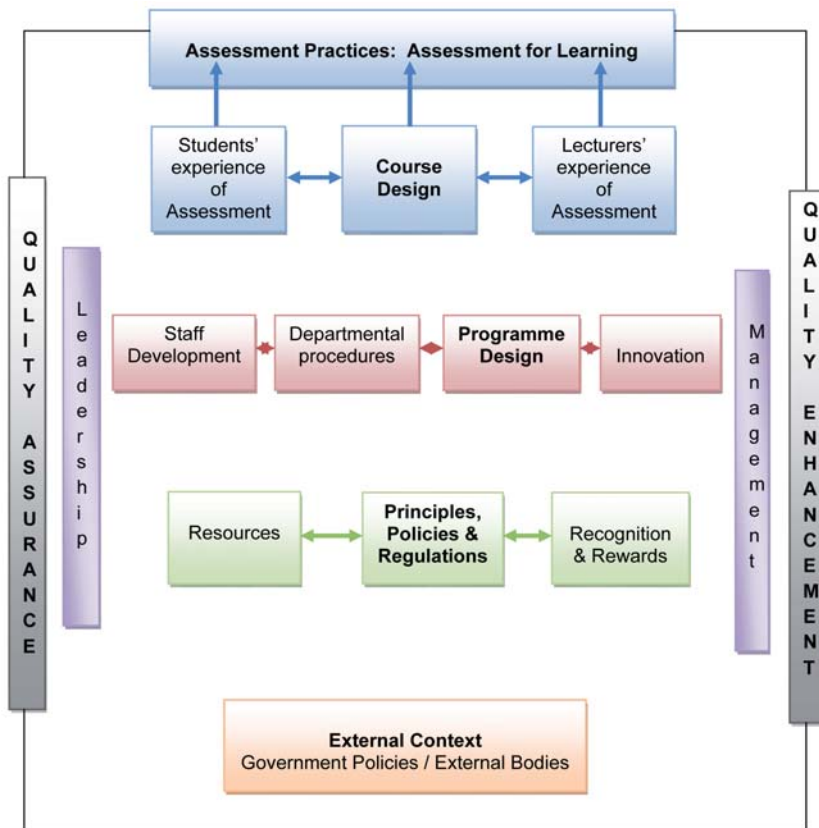
## *CONCLUSION*

Assessment is an ever-present reality in the lives of educators and is viewed by many as the process of determining student achievement. This study demonstrated assessment to involve a range of purposes. Assessment could serve to support teaching and learning, provide information about the students, lecturers and the University, act as a certifying device and drive curriculum and teaching. Therefore, developing assessment needs a clear sense of curricular purpose and clear levels of analysis. The study also confirmed that assessment

must be aligned to clearly defined purposes, which in turn affect decisions regarding the frequency of assessment, design, implementation, marking and grading and feedback.

Moreover, assessment has far-reaching implications in all educational settings. Assessment can affect students' lives way beyond graduation.  It is therefore important that assessment practices be seen as justifiable and fair to students and that they measure and describe what they set out to do in reliable and consistent ways.  In order for an assessment programme to be successful, the following four strategies are essential:

- Agree on goals and objectives for learning

Reaching agreement about the goals and objectives for learning and having an understanding of where and how they are addressed in the curriculum is important to successful assessment.  This foundation guides the selection of assessment instruments and facilitates the use of assessment results.  It also provides explicit information to students and the public about the aims of higher education.  Hence the recommendation that the very first field of the Student Assessment Management System (SAMS) deals with the Institutional objectives that should be linked with programme objectives and course objectives.

- Design and implement a thoughtful approach to assessment planning

An assessment plan captures agreement about what matters for the institution, gives direction for actions, and provides a means to determine if progress is being made.  Creating a plan helps the institution see the big picture of assessment, including its who, what, when and why? Emphasis should however be on the process and discussion that produces and carries out the plan rather than on the document itself.  An important consideration when planning an assessment programme is to link the results of assessment to other educational processes such as curriculum review and planning and budgeting.  Again, the recommended SAMS allow for this under field 3 that deals with feedback to management and policy makers.

- Select or design and implement data collection approaches

To select among assessment instruments, lecturers must become familiar with various assessment methods.  The most important selection criterion must be whether the method will provide information that indicates whether students are learning.  Assessment methods must be linked to goals and objectives for

learning and to the instructional activities that support these goals (SAMS field 2). In addition, lecturers need to consider what is known about theories of learning when designing assessment strategies. If learning is enhanced by doing, it makes sense to design assessment methods that actively engage students. Such methods should also allow students the chance to receive feedback and respond to it, in other words, two-way communication between lecturers and students is enhanced.

- Examine, share and act on assessment findings

Assessment should foster conditions in which meaningful questions are raised and addressed and in which assessment evidence is valued and used (Butler, 2006:17). Well-chosen assessment methods will produce information that can lead to improvement. However, the information must be analysed and shared before it can provide a basis for action (SAMS field 3).

Considering the above mentioned strategies for a successful assessment programme, assessment has a much broader purpose. It can be a mechanism for improving teaching, reviewing educational goals, and evaluating educational programmes generally. If we restrict assessment to grading students, it has missed most of its potential. However, if we adopt the position that assessment ought to be a mechanism for improving teaching and learning, then educational planning, instruction and assessment become connected and should be approach as a coherent whole (Stiggins, 2001).

Distance education assessment is nothing different. The process of distance education only adopts methods and techniques appropriate for particular educational goals and objectives. There seems to be substantial evidence that students in distance education can be held to the same academic standards as students in traditional education (Miller, 2000; Ryan, 2000; Sener & Stover, 2000; Serban, 2000; Gagne & Shephard, 2001; Meyer, 2002; Neuhauser, 2002; Saba, 2003). With the growing integration of technology in education, it is possible that the differences between distance education and traditional face-to-face education will diminish rather than increase. The mission of any educational system should be to focus on creating an educational event that causes a marked and sustainable behaviour change in students. Since knowledge about students, learning and assessment, in addition to the design of curricula, contribute to assuring quality higher education in both traditional and distance education, time, location and pace of study become less important as indicators of quality instruction.

## REFERENCES

Airasian, P. (2001). Classroom assessment: Concepts and applications. Boston, MA: McGraw-Hill.

Butler, S.M., & McMunn, N.D. (2006). A teacher's guide to classroom assessment. Understanding and using assessment to improve student learning. San Fransisco: Jossey-Bass.

Gagne, R. & Shepherd (2001). The conditions of learning. New York: Holt, Rinehart and Winston.

Greenberg, G. (1998). Distance education technologies: Best practices for K-12 settings. IEEE Technology and Society Magazine, (Winter) 36-40.

Holmberg, B. (2001). Distance education in essence. Oldenburg, Germany: Bibliotheksund Informations system der Universitat Oldenburg.

Jonassen, D.H. (2002). Applications and limitations of hypertext technology for distance learning. Paper presented at the distance learning workshop, Armstrong Laboratory, San Fransisco, TX.

Keegan, D. (1999). Distance Education Technology for the new millennium: Compressed video teaching. ZIFF Papiere. Hagen, Germany: Institute for Research into Distance Education. Eric Document Reproduction Service.

Lockwood, F. (1995). Open and Distance Learning Today. London: Routledge

Luckett, K., & Sutherland, L. (2000). Assessment practices that improve teaching and learning in Higher Education: a handbook for Southern Africa. Johannesburg: Witwatersrand Press

Mendes, M. (1998). Conceito e significados de avaliação de aprendizagem. Available from: http://www.mackenzie.br/artig1.htm (Accessed: 12 January 2007).

Meyer, K.A. (2002). Quality in Distance Education: Focus Online learning. In A.J. Kezar (Eds) ASHE – ERIC Higher Education Report. Vol. 29. Jossey – Bass.

Miller, B. (2000). Comparison of large – class instruction versus online instruction: Age does make a difference.

Moore, G. M. (1999). Autonomy and Interdependence. The American Journal of Distance Education 8(2).

Moore, G.M. (1993). Theory of transactional distance. In Keegan, D. (ed), Theoretical principles of distance education. London: Routledge.

Neuhauser, C. (2002). Learning style and effectiveness of online and face-to-face instruction. American journal of distance education, 16 (2).

Peters, O. (1993). Understanding distance education. In Harry, K., John, M and Keegan, D. (Eds.), Distance Education: New perspectives. London: Routledge.

Ryan, R.C. (2000). Student assessment comparison of lecture and online construction equipment and methods classes. Retrieved 23 February 2007 from http://thejournal.com/magazine/vault/cfm.

Saba, F. (2003). Distance Education Theory, methodology and epistemology: A pragmatic paradigm. In M.G. Moore and W.G. Anderson (Eds). Handbook of Distance Education. NJ: Lawrence Erlbaum Associates.

Sener, J., & Stover, M.L. (2000). Integrating ALN into an independent study distance education programme: NVCC case studies. Journal of Asynchronous Learning Networks, 4 (3). Retrieved from http://www.aln.org.

Sethy, S.S. (2009). Mobile learning in distance education. A paper presented at the Cambridge International Conference on Open and Distance Learning, 22 – 25 September 2009 in Cambridge, UK.

Serban, A.M. (2000). Evaluation of fall 1999 online courses. ED at a distance. Retrieved from http://www.usdla.org. Simonson, S. (1995). Does anyone really want to learn at a distance? Tech trends 40(5).

Simonson, S. (2003). Teaching and Learning at a distance. Foundations of distance education. Pearson Education, Inc

Suen, H. (2005). Challenges and opportunities in distance education evaluation. Journal of Educational Reform, 5(1), 56 – 76.

Suskie, L. (2002). Seven steps to fair assessment. AAHE Bulletin, May 2000.