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## **DASHBOARD FOR OPEN AND DISTANCE LEARNING REGIONAL CAMPUS: A CASE OF THE ZIMBABWE OPEN UNIVERSITY REGIONAL CENTRES, A FOCUS ON MASHONALAND EAST REGION.**

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### **Abstract**

*Information has been invariably used for assessment (Ruben 1999), communication on the current performance level of the organization, benchmarking (Sybert 2012), monitoring institutional performance (Committee of University Chairmen, CUC 2006), provide strategic thinking and accountability (Thomas Reuters 2010). Dashboards as sources of information have not been used for continuous improvement purposes by operatives at shop-floor level. This qualitative paradigm using the case study design was used in this study to uncover academic and administrative staff's experiences and negotiate these with the researchers' own experiences and position (Mertens 2005) to identify dashboard indicators for a Regional Campus in an open and distance learning institution using the case study of Mashonaland East Regional Campus of the Zimbabwe Open University. Focus group discussion was conducted to generate information from the academic staff while interviews were used with administrative staff in the Mashonaland East Regional Campus. The main areas identified by both academic and administrative staff were teaching and learning, research and innovation, community service, registration, library and information services, information and communication technology, financial indicators, module status and stakeholder satisfaction. The list is not in order of importance. The study recommends that these be used in a creative way to design and display the dashboard and continuously refined.*

**Key Words:** *Dashboard, Open and distance learning, Dashboard indicators, Regional Campus*



## **1.0 Introduction**

Information and measurement for assessment, in the form of dashboards, is a common theme in organizational theory (Ruben 1999). Quality assurance models such as the Malcolm Baldrige criteria have “Information and Analysis” as one of the seven categories while, ISO 9001 has the eighth principle as “Factual Approach to Decision-Making”. The emphasis on information and measurement underlines the indispensability of the two themes for organisations to strike excellence and continuous improvement.

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Information has been invariably generated for senior management (CUC 2006), and primary stakeholders (Sybert 2012). Needless to say that for accountability purposes, information reports are directed to government or private councils/boards as the case may be. It is not a surprise that even though dashboard indicators and data collection might involve every level within the organization, their use has not been for the same stakeholders.

Dashboards have been produced by conventional universities. Distance education institutions develop dashboards but have been used by senior management. Literature on dashboards for decentralised functions of the distance education functions is scarce. Dashboards have been used for purposes other than continuous improvement at the regional level. Dashboards might be effective tools for continuous improvement as opposed to their use by senior management for decision-making purposes. Ruben (1999) argues that the value of assessment and measurement are in equilibrium, while contention remains on what and how to measure, more so for a decentralized regional office in a distance learning institution.

## **2.0 Statement of the Problem**

While dashboards have been developed for conventional universities, covering institution-wide measures, little research has focused on the development of dashboards for regional centres in an open and distance learning institution. Institutional dashboards are not ideal for a regional centre’s continuous improvement efforts as they are serve other purposes.

## **3.0 Research Questions**

- Which characteristics differentiate a regional centre in an open and distance learning institution from a conventional campus university?
- Which dashboard design methodology would address the regional centre needs?
- Which datasets would communicate with the regional centre’s stakeholders and enhance continuous improvement?



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## **4.0 Literature Review**

### **4.1 Distance Education**

Although distance education was known as far back as the early seventies as a form of correspondence education, the concept was formally recognized in 1982, when the then International Council for Correspondence Education (ICCE) changed its name to the International Council for Distance Education (ICDE) (Holmberg, 1986). Since then several writers and scholars have attempted to define and explain the term 'distance education'. In his explanation, Peters (1998), tends to use the term distance education interchangeably with the broader concept of correspondence education. Peters (1998) argues that distance education is characterized by the use of (1) printed material, radio and TV programmes, (2) computers and (3) study circles.

Holmberg (1977:7) attempted to go deeper into explaining the concept of distance education. He explains:

The term 'distance education' covers the various forms of study at all levels which are not under the continuous, immediate supervision of tutors present with their students in lecture rooms or on the same premises, but which, nevertheless, benefit the planning, guidance and tuition of a tutorial organization. Distance education includes all 'those teaching methods in which, because of the physical separateness of learners and teachers, the interactive, as well as the pre-active phase of teaching is conducted through print, mechanical or electronic device.

To further clarify his definition, Holmberg (1977:7), identifies the following activities as constituting some of the major characteristics of distance education.

- Non-contiguous communication;
- Based on pre-produced course;
- Organized two-way communication between the learner and a supporting organization;
- Individual study;
- A form of mass communication;
- An industrialized type of teaching and learning

Another scholar, Moore (1983:157) conceives distance education as synonymous with 'independent study'. He defines distance education as "...an education system in which the learner is autonomous and separated from his teacher by space and time, so that communication is by print, electronic, or other non-human medium". According to Moore (1983), Distance Education is a system consisting of three sub-systems; the learner, teacher and a method of communication.



Perhaps the most comprehensive definition of distance education is that first proposed by Keegan in 1980 and subsequently modified in 1986. Keegan's definition incorporates aspects of the definitions proposed by Holmberg (1977), Peters (1973), and Moore (1973). Keegan (1986) identifies seven principal characteristics, which he regards as being essential for any comprehensive definition of distance education. These characteristics, Keegan (1986:49-50) argues, distinguishes distance education from other forms of education systems. These characteristics include;

- The separation of teacher and learner which distinguishes it from face-to-face lecturing;
- The influence on educational organization which distinguishes it from private study;
- The use of technical media, usually print, to unite teacher and learner and carry the educational content;
- The provision of a two-way communication so that the student may benefit from or even initiate dialogue;
- The possibility of occasional meetings for both didactic and socialization purposes;
- The participation in an industrialized form of education which, if accepted, contains the genus of radical separation of distance education from other forms;
- The privatizing of learning so that learning occurs away from the group.

Thus Keegan (1995:7) gives the most thorough definition. He says that distance education and training result from the technological separation of teacher and learner which frees the student from the necessity of traveling to "a fixed place, at a fixed time, to meet a fixed person, in order to be trained". The feature of separation of teacher and learner was also coined by Teaster and Blieszner (1999:741) who opine that, "the term distance learning has been applied to many instructional methods: however, its primary distinction is that the teacher and the learner are separate in space and possibly time". With the history of distance learning encompassing so many different learning environments, we need to find a definition that fits in all situations. There have been many definitions put forward in modern literature. From these definitions we can see that the student and teacher are separated by space, but not necessarily by time.

#### **4.2 Distance teaching and distance learning**

Distance teaching indicates the process of course development by which a distance education institution prepares learning materials for students. Distance learning or learning at a distance is the process as seen from the students' perspective. Distance education thus brings together both elements of this field of education. The term distance education refers to teaching and learning situations in which the instructor and the learner or learners are geographically separated, and therefore, rely on electronic devices and print materials for instructional delivery. Distance teaching includes the instructor's role in the process and distance learning - the students' role in the process Lane 1994 in Keegan (2013). This article focuses on four key promises that characterizes distance education and distinguishes it from conventional education.



- Distance education was considered to be a **cost effective** way of providing education to meet the country's increasing demand for tertiary education. A distance education university does not have to set up a campus to house students. The university maintains a lean organizational structure. This is expected to lead to low operational costs.
- Distance education programmes have to be **very flexible** in order to allow students to study at their own time, place and pace.
- Distance education was **affordable** in that its low operational costs could be passed on to students in the form of low fees.
- Through distance teaching, education becomes more **accessible** to many people who could not be accommodated in the conventional educational institutions.

### 4.3 Open and Distance Learning

The concept “open and distance learning” is relatively new and several writers and scholars have attempted to distinguish between “open learning” and ‘distance education’. Saide and Saide (2003) define open learning as “an organized educational activity, based on the use of teaching materials, in which constraints on study are minimised in terms either of access, or of time and place, pace, method of study, or any combination of these”. The same authors define distance education as “an educational process in which a significant proportion of the teaching is conducted (through some form of technology) by someone removed in space and/or time from the learner”. (Saide and Saide, 2003). There is, however, extensive overlap between the use of the term “open learning” and “distance education”. The decision of the United Kingdom government in the mid 1960s to rename the University of the Air the “Open University” popularized the term “open”. The term is now widely used in distance teaching universities that include; The Open University of Tanzania (1993), The Open University of Bangladesh (1994), and more recently the Zimbabwe Open University (1999), just to mention a few examples. The establishment of open universities around the world aim to address the educational and re-educational needs of adult learners and workforce by providing a high level of studies (Evans and Lockwood, 1994, Evans and Nation, 1996). Open universities typically develop educational activities underpinned by an educational philosophy fundamentally different from those held by conventional educational systems. The main aspect of this philosophy is to promote “lifelong education” and to provide adults with “a second educational chance” (Keegan, 1993). The educational method used in an open university system is most typically “distance learning.”

Closely allied to the concept open learning is the concept of flexible learning. Van den Brande (1993:2) defines flexible learning as “enabling learners to learn when they want (frequently, timing, duration) how they want to learn (modes of learning) and what they want (that is learners can constitute what is learning to them). These flexible principles may be applied at a distance. In such cases the learners can choose where they want to learn (at home, at a training center, etc.)



#### **4.4 The organization and management of distance education at the ZOU**

The mode of delivery of the DE programme is predominantly print (modules), supplemented with face-to-face tutorials of six hours per module, telephone contacts, emails, social media and one-on-one contact with tutors as and when needed. Most of the programmes take four academic years to complete. Each year is divided into two semesters and four modules are studied per semester. Examinations are set in each module and written at the end of each semester (ZOU Regulations, 2010).

There is use of ICT systems to enhance interaction among students and tutors. Social media are used for informational and support services, while the MyVista platform is for instructional purposes. There is also an interactive facility on MyVista but for instructional purposes only. Teleconferencing, and other packages for e-learning are not yet available. There are now course websites on MyVista that have courses uploaded and can be downloaded online. Assignments can be uploaded, and marked online. Students mainly rely on the printed materials and the scheduled face-to-face tutorials. Final examinations are written at accredited examination centres which are usually located in the host DE institution.

#### **4.5 Distinction between distance education and conventional education**

One key feature that distinguishes distance education from conventional education is that whilst conventional students are formally taught in institutions such as schools, colleges and universities, where students enjoy face-to-face interaction with their teachers, in open and distance learning environments, students have minimum contact with their teachers and are taught through a combination of delivery modes that include the printed materials. In conventional education, students are taught through lectures and they visit the library to study from prescribed text books. In distance education, the learning materials must be compiled, packaged and delivered to students far away from the educational institution. Unlike the traditional student who interacts with the teacher, a distance education student is guided in her or his studies through some form of technology. That includes telephone, limited face-to-face tutorials, and study guides. The idea here is that since in distance education, the lecturer is separated from the students and cannot personally deliver instruction, he/she then prepares the lecture notes in written form and delivers them to the distance education student who will use these notes as study guides. The development of study guides (commonly referred to as modules) has always been a critical activity for distance education systems because the quality of the learning materials have a direct impact on the quality of teaching and learning distance education students receive.

#### **4.6 Which datasets would communicate with the regional centre's stakeholders and enhance continuous improvement?**

Doerfel and Ruben (2002) describe a dashboard as key elements of an organisation's mission, vision and strategic direction is used by the institution to monitor and navigate the organisation. Of importance is the fact that a dashboard collates information on the institution's performance in various areas of its strategic thrust. This assertion is further stressed by Terkla et al (2012) when they state that the "common denominator of all dashboards is that each consists of a set of strategic indicators."



## **5.0 Methodology**

The qualitative paradigm using the case study design was used in this study to uncover academic and administrative staff's experiences and negotiate these with the researchers' own experiences and position (Mertens 2005). Ontologically the researchers believe that reality is subjective and multiple (Creswell 2007). The ideal set of dashboard indicators are as described by the regional campus academic and administrative staff. Epistemologically, the use of the qualitative approach enabled the researchers to bridge the gap between their views and those of the participants by working together as they are part of the institution (Creswell 2007). LeCompte and Schensul (1999) identify naturalistic inquiry as a characteristic of qualitative research. This study generates data from real-world situations whereby participants provide their views on dashboard indicators from their own experiences at the work place where the researchers are the key instruments (Hatch 2002). Focus group discussion was conducted to generate information from the academic staff while interviews were used with administrative staff in the Mashonaland East Regional Campus.

## **5.1 Population**

The Zimbabwe Open University Mashonaland East academic and administrative staff formed the population of the study numerically being 13 and 26 respectively. All the members of staff took part in the research as they were interviewed to identify key performance indicators related to their area of operation and those, which they felt, were pertinent from other units. The academic staff took part in focus group discussion.

## **6.0 Results**

The researchers first interviewed regional campus units. In most instances related units were interviewed together. The researchers used group interviews to allow for interchange of ideas amongst the participants in order to get to the best ideas. The two secretaries and four members of the registry unit were interviewed together. The target area was the registry department. Participants noted that the main aspect of measurement within the registry department was the enrollment statistics. They pointed out that the practice is that once registration commences, daily figures of registrations are sent out to all departments within the Regional Campus and National Centre. The two secretaries concurred that the daily statistics is the core business of this department. The interviewees also noted that online enquiries are recorded for further communication and link with the relevant faculty.

The accounts department was interviewed in isolation. The two clerks were group interviewed as well. The clerks explained that the current practice was that they only share their information with National Centre. Information relayed to National Centre pertained to the status of, expenditures, debtors and creditors. Information such as admissions was for Regional Campus consumption although it is not communicated to other regional Campus units, but available on request. Upon inquiry on what information would be needed by other units that can be reported on the Regional Campus dashboard, the clerks concurred that there was need to show -----.



The only stores clerk was interviewed alone. Asked on the main areas that needed reporting in a dashboard the clerk explained that,

*“My business here is to ensure that I order and issue out modules for bona fide ZOU students. As such, it is important to display the module provision within the Regional Campus and National Centre.”*

The current practice is that requisitions are sent to National Centre without other units really knowing the position, as is the case with enrollment statistics. While there are storks of other items the most important aspect to be reported on is the modules provision. The importance attached to this indicator resonates quite well with the distance education student who has to rely on the module for basic instruction due to separation from the tutor in space and time (Saide and Saide 2003).

The ICT Technician and the two Senior Library Assistants were interviewed together. The three concurred on the need to constantly monitor the bandwidth the Regional Campus is receiving at any given point. In the words of Participant One;

*“In view of the fact that our ODL students do not have access to hard copies any time they so please, internet services are a major priority for ICT and LIS.” Furthermore, the university has introduced ICT enabled learning through the use of the MyVista platform for learning material, assignments submission and marking, as such, the success teaching and learning solely lies with the effectiveness of the internet.”*

Participant Two; *“If there is one element that is so crucial to the success of this Regional Campus, it is the internet. The KOHA system is hinged on the effectiveness of the internet, electronic resources, which are in excess of one million for use by our patrons, can only be accessed if the internet is dependable.”*

Participant three added that,

*“Over and above the importance of the internet, there are other important issues such as those mandatory for compliance with the Zimbabwe Council for Higher Education, (ZIMCHE) the national quality assurance body. These include the number of computers per student for the various programmes and levels.”*

One participant stated that, the issue of hard copies is one indicator that has to be constantly monitored. This indicator keeps the Regional Campus reminded of its core duty of making sure that students have the most enriching learning environment by accessing the latest and most enriching reading material.

Another participant added, *“The number of library users has to be tracked for various analyses of the Library Information Science services.”*

From the responses of the three participants, a number of important indicators for the Regional Campus emerged, that is, Library user statistics, Number of hard copies in the Library, Number of students per PC, the library and ICT lab bandwidth at all times. The monitoring of ICT and





LIS provisions is essential and concurs with Van den Brande (1993) who emphasizes the flexibility in ODL. The availability of internet, hard copies may allow for the flexibility of reading times and materials for learners.

The Student Advisor was interviewed alone. Asked on which aspects of the work need to be closely monitored and constantly reported on the dashboard, the Student Advisor noted the first as student satisfaction. The Student Advisor stressed that this indicator is essential as it shows the Regional Campus ability to retain students in stream. A satisfied customer has the capacity to entice five more customers, while a dissatisfied customer has the can turn away twenty potential customers. The Student Advisor added that, of note are the performance measures, such as pass rate, graduation rates, transfer rates among others. The dropout rate is an issue that has to be tracked. Generally, student dropout rate in ODL institutions is high as, such this has to be monitored so that dropout rate can be minimized.

Eight Regional Programme Coordinators for the Mashonaland East Regional Campus participated in the focus group discussion. Academics were asked to state the main areas that which might have indicators for inclusion in the dashboard. They stated, teaching and learning, research, community service, workplace satisfaction and financial performance. Asked further to break down the areas identified there seemed to be convergence, in some areas, between the academics' views with those of the administrative staff. The academics view of the dashboard was mainly inclined to their work. This indicates that the areas indentified have to merge with the areas identified by administrative staff for a fully comprehensive dashboard. The academics went on further to identify specific indicators that could be included in the dashboard.

**Conclusion**

The consolidated list of indicators is shown below from each area.

<p><b>Teaching and learning</b>                  Faculty student ratios                  Pass rates                  Graduation rates                  Visits to the MyVista platform by students                  Tutorial attendance                  Students who are still technologically challenged</p>	<p><b>Community Service</b>                  Number of outreach programmes                  Alumni activities                  Student Representative Council activities                  Number of marketing activities</p>
<p><b>Stakeholder Satisfaction</b>                  Staff satisfaction                  Student satisfaction index                  Number students' complaints                  Part-time tutor satisfaction                  Service providers' satisfaction                  Number of students who were given counseling services</p>	<p><b>Research and Innovation</b>                  Number of publications by members of staff                  Number of patented researches                  Research conference attendances</p>



<b>Financial indicators</b> Regional Campus revenue from students Regional Campus revenue from other projects Regional Campus expenditures Regional Campus debtors Regional Campus creditors	<b>Information Communication Technology</b> Number of students per PC Bandwidth User statistics Number of students trained in use of ICT tools
<b>Library and Information System</b> Number of hard copies in circulation User statistics	<b>Modules Status</b> Module Provision Modules shortage
<b>Registration</b> Registration statistics Admissions	

### Recommendations

It is recommended that the above identified indicators be used to design the dashboard for the Regional Campus. The study recommends that these be used in a creative way to design and display the dashboard and continuously refined.

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