Full Length Research Paper

A quest for sustainable quality assurance measurement for universities: Case study of the University of Botswana

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This paper offers a fresh look at measurement- based assessment of learning at university level. The paper draws on a rich literature that informs what quality entails for our universities. The quality assessment measurement (QAM) scale used has been designed centering on six set of competency parameters: resources, teaching and learning, research, leadership, discipline and open conceptions of education quality. Each competency parameter mirrors a number of competency indicators that can jockey upon or inform some aspects of quality. The primary purpose of this paper is to try out a simple model for measuring quality in universities. This study used a randomly selected sample of 176 lecturers who responded to a quality assurance assessment scale. Appropriate tabular analysis used has projected how respondents react to the six quality areas tested. The study has revealed low rating in the six set of competency parameters we set to understudy. For that matter there is need to attend to the relevant suggestions made by the respondents as outlined in section 3.2 of this article.

Key words: Quality assurance, total quality management, university, higher institutions.

BACKGROUND

In recent years, quality assurance in education has become an important factor in every country in the world. This is precipitated by the drastic impacts from new educational paradigms, demands for accountability, socio-economic and political demands, international market competition and advances in information technology. In actual fact, these impacts do provide a heightened need for quality assurance in education in all countries in order to counter and face squarely such impacts.

Several scholars have reflected on a variety of practices which can lead to the achievement of quality and higher performance at institutions of higher education (Okiy, 2006; Mok, 2005; Watty, 2005; Bugdol, 2005; Bornman, 2004; Cheng, 2003; Jackson, 2000; McKay and Kember, 1999; Shutler and Crawford, 1998; Creedy, 1995; Arnold, 1994; Deming, 1986). These scholars refletive discourse requires proper attention if the needed quality for higher education's efficiency and efficacy of institutional performance is to be enhanced. For example,

one can interrogate operations of some quality strategic drivers such as International Standards Organisation 9000 (ISO 9000), the international standard in quality assurance systems that can be applied to higher education when a calibration of the product of education adopted by the British Standards Institution is followed (Srikanthan and Dalrymple, 2007; Karapetrovic and Willborn, 1999; Shuttler and Crawford, 1998; Arnold, 1994; Deming, 1986).

Generally in the writings of some of the aforecited scholars what they gyrate upon, amongst others, are ensuring good delivery which include the process of equiping learners in the university with the desired quality knowledge, skills and attitudes to face the challenges of an actively changing society, defining the benchmarks and threshold standards, taking into account quality assurance measures or indicators when consolidating and restructuring existing academic programs and planning of new ones (Okiy, 2006; Watty, 2005; Mok, 2005; Riley, 1994; Green, 1994; Van, 1989). Furthermore even though quality assurance mechanisms tend to be perceived as something imposed by university management (McKay and Kember, 1999), the debate amongst most

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scholars reflects it as a good philosophy, strategy and paradigm for enhancing university performance (Mok, 2005; Bornman, 2004; Cheng, 2003; Martens and Prosser, 1998). There are obvious difficulties with regard to how to generate universally acceptable quality assurance measures. But in this paper the researchers have come up with some quality measurements indicators that may commonly be used or adapted for achieving quality and high performance.

Cheng (2003) has reviewed the characteristics and paradigms of quality assurance citing trends that provide the first, second and third waves of quality assurance in education. It is commented that, the initiatives for quality assurance should be moving to a third wave today. It is important to summarize the waves thus; the first wave is that traditionally, especially before the 1980s, we have been concerned with "internal quality assurance" focusing heavily on teaching, learning, and effectiveness of internal education such as improvement of classroom environment or curriculum development and change or quailfications and competencies. But unfortunately such efforts could not satisfy the increasing expectation of the diverse (internal and external) stakeholders. Studies reveal instances in which some Universities have not been sensitive to the expectation of different stakeholders (groups) hence fail (Birnbaun, 2000; Senge et al., 2000; Berry, 1997; Seymour et al., 1996; Murgatroyd, 1991). The first wave seems to neglect multiple stakeholders' expectations. Several stakeholders whose perspectives on quality system in higher education that need to be listened to are funding bodies and communities at large who look for good returns on their investments (Harvey and Green, 1993), uses of products e.g. both current and prospective students (Yorke, 1997), the employees of the sector and users of outputs / graduates (Harvey and Green, 1993).

The second wave is said to have started in 1980s. This considers education quality and its assurance in larger changing social contexts, in which satisfying multiple stakeholders became crucial criteria for determining educational quality indicators (Cheng, 2003; Lee, 2000; Berry, 1998). To satisfy multiple stakeholders in this regard assumes models in which the following are necessary for educational institutions to provide quality services:

▪ The resource input model.
▪ Satisfaction model.
▪ Legitimacy model in terms of winning the support of the community and showing evidence of accountability.

The organization learning model involving improvement and development of learners' discipline, practices, processes and outcomes of educational institutions (Duderstadt, 2003; Fuller, 1993; Berry, 1998; Castle, 1993). Here strategic management, development planning, and staff development are seen to be important tools for quality assurance in education. The last model under the se-

cond wave is the Total Quality Management (TQM) model in which total education quality is seen as a set of elements in the input, process, and output of the education system that delivers services satisfying both strategic internal and external constituencies (Cheng, 2003, 1995; Willborn and Karapetrovic, 1997).

The third wave emphasizes strongly future quality assurance in terms of need to ensure relevance to new education functions in the new millennium. The paper reverberates on

1. The factors such as need for education reforms to attune to rapid globalization.
2. Impacts of information technology.
3. Drastic shocks of economic down turn.
4. Strong demand for socio- economic developments (Cheng, 2003; Creedy, 1995; Mazrui; 1980).

What can be seen in the foregoing reviews are various attempts to ensure quality assurance in education. We have also seen three waves of education reforms which represents different paradigms in conceptualization and assurance of education effectiveness and quality. In all these, the researchers' quality designs have attempted to encapsulate a way of assessing education in the new century. It is also suggested that the three waves may be integrated to provide a holistic framework for stakeholders, educators, learners, researchers and policy makers in pursuing quality education in the new millennium.

This paper intends to focus on how one particular university responds to the designed measurement indicators on a trial run. The aim is to invite insights into the perceptions of quality by (lecturers) one of the primary stakeholders

DATA AND METHODS

The data for this study was obtained from a sample of randomly selected two hundred (200) lecturers at the University of Botswana. Of the two hundred (200) questionnaires distributed, one hundred and seventy six (176) which is equivalent to 88% questionnaires were returned.

The type of study, in this research, was a descriptive method using both tabular and thematic analysis. The researchers designed a quality assessment scale (QAS) which consisted of fifteen (15) items which were distributed under six categories as indicated in Table 1.

The quality assurance assessment variables shown in Table 1 were tested using Likert scale as follows; Strongly Disagree (1), Disagree (2), Undecided (3), Agree (4) and Strongly Agree (5). Also the open ended statement shown in table 1 no.6, respondents were asked the following questions; What suggestions can you give in improving quality at your University. This was interpreted was interpreted on thematic lines. Specifically, the following research questions were the main focus of the study:
1). To what extent do respondents rate the achievements of the designed QAS indicators?
2). What are the suggestions that respondents give for education quality improvement at the University?

Table 1. Distribution of items concerning the QAS variables.

Quality assessment variables	No. of Items
Resources	3
Teaching / Learning	3
Research / Publication	3
Leadership	2
Discipline	3
Open ended criteria	1
Total	15

Table 2. Distribution of respondents concerning resources.

Items	Disagree	Undecided	Agree
1.	129 (73%)	18 (10%)	29 (17%)
2.	116 (66%)	14 (8%)	46 (26%)
3.	62 (35%)	70 (40%)	44 (25%)

Table 3. Distribution of responses concerning quality of teaching / learning.

Items	Disagree	Undecided	Agree
4.	82 (47%)	29 (16%)	65 (37%)
5.	16 (9%)	10 (6%)	150 (85%)
6.	53 (30%)	30 (17%)	93 (53%)

RESULTS AND DISCUSSION

The results obtained are formula-based on the two research questions as already indicated in section three under the data and methods.

The findings of this study were tabulated, and Table 2 indicates the responses of lecturers concerning the availability of the resources at the university.

The rating of quality assessment variables

An analysis of the data shown in table 2 reveals the following: First, in item 1, majority (73%) of the respondents indicated that the ratio of students to lecturers is not very good. While 10% of the respondents remained undecided, 17% of the respondents indicated that the ratio of students to lecturers is very good. Secondly, in item 2, majority (66%) of the respondents indicated that, facilities such as computers, books amongst others are inadequate. A few respondents (8%) remained undecided, while 26% felt that the available facilities are adequate. Thirdly, 35% of the respondents disagreed with the statement that funds are available for research. There were 40% undecided about this, while 25% agreed that funds are available for research.

All the foregoing reactions mirrored in Table 2 suggest that, the University may be encountering problems of resource(s) scarcity. This, in essence, may easily threaten quality standards. Perhaps this might need the University to consider reducing the numbers of activities so that the limited resources are better focused. This corroborates with some thinking that a university can become more efficient or productive by focusing resources to achieve quality (Duderstadt, 2003). Alternatively, Duder-

stadt's view corroborated Berry (1998) who reflects on a Quality Systems Model for the management of quality at the University. The idea is that, quality should be the management of processes to continually improve in the ability to satisfy customer needs. This is said to include; the establishment of a good quality management system and assessment of its adequacy, the audit of the operation of the system, and the review of the system itself. The way the University responds to resource allocation may be more important here since there are many cases where resources are apportioned into specific funds / votes, more determined by historical traditions than strategic management. Simply put, the idea is that, Berlin walls should not be constructed between funds and votes to limit transfers of funds. Again it is normally said that, subjecting institutions to highly centralized system and across- the – board cuts are simply not long- term strategies (Duderstadt, 2003).

As table 3 indicates with regards to learner-centered approach, responsibility of learners toward their learning and relevance of courses, 47, 9 and 30% of the respondents respectively disagreed with the underlying items. Conversely, it is evident that 37, 85, and 53% respectively agreed with underlying items, while 16, 6 and 17% respectively were undecided.

First, a look at the above configurations in terms of learner-centered paradigm reveals that the University has not become more focused on those it serves, even though it appears lecturers feel that students should be responsible for their own learning. The results as it appears is more dangling as pendulum is not clear on what is happening on the ground. Also results obtained appear positive whereby 85% feel that the courses offered have relevance. The researchers posit the question: Isn't it that we are supposed to transform ourselves from teacher-centered to learner-centered universities? It is asserted that, high quality student learning is not just high quality presentation of content, but fundamentally about affording a context of high quality student learning and proper conceptualization of multi-models of quality in education (Martens and Prosser, 1998; Cheng and Tam, 1997).

An examination of table 4 reveals that, there is no much commitment to research and publications. The evidence is that, only 18% indicate that the University is committed to research and 21% indicates that the University has a strong funding base for its research activities. In another item 32% feel that the quality of the University

Table 4. Distribution of responses concerning research and publications.

Items	Disagree	Undecided	Agree
7.	67 (38%)	78 (44%)	31 (18%)
8.	59 (34%)	60 (34)	57 (32%)
9.	61 (35%)	78 (44%)	39 (21%)

Table 5. Distribution of responses concerning leadership.

Items	Disagree	Undecided	Agree
10.	94 (53%)	24 (14%)	58 (33%)
11.	98 (56%)	16 (9%)	62 (35%)

Table 6. Distribution of responses concerning discipline.

Items	Disagree	Undecided	Agree
12.	104 (59%)	24 (14%)	48 (27%)
13.	74 (42%)	25 (14%)	77 (44%)
14.	50 (28%)	11 (6%)	115 (66%)

staff as measured by research output is excellent.

The findings paint a gloomy picture about the University research potential. It is generally known that, research role should be critical quality characteristic nature of a university. Without this, we cannot bear fruit in new products, and processes that can fuel economy and improve quality of life. In addition to this, we cannot invest in human and intellectual capital, which is a prerequisite for any development to be achieved. For that matter, the University needs a new paradigm for producing a zero defects researchers. Willborn and Karapetrovic (1997) in research and concepts study, has tried to drive a useful point in the creation of zero-defect students.

In Table 5, the role leadership in the enhancement of quality systems was sought from the respondents. The results reveal that, over half (53%) of the respondents indicated that the University organizational climate does not enhances quality learning. Regarding students' exposure to leadership training opportunities 56% of the respondents felt that students are not exposed to such training opportunities for developing leadership, whereas 35% of the respondents were positive that such exposure exists for students.

From the foregoing responses, it is clear that students may not get much exposure for developing their leadership potential. This might require the University to re-examine what kind of leadership experiences respondents may want to see happening. Perhaps, there may be need to revisit the entire learners participation in the University governance at all levels. Currently, the role of learners in institutional governance has become a very important factor. It is not only in the classroom context (learner-centered pedagogy), but also in institutional administration where such exposure can be strengthened apart from going out for internships.

Yet, as the statement reviewed already from one of the presidents' of the University suggests, it seems clear that a university of twenty-first century will require new models of governance / leadership capable of responding to the changing needs of learners / society and its educational

institutions (Duderstadt, 2003).

In table 6, the response of lecturers on discipline as an important ingredient for teaching and learning was explored. In item 12, 59% of the lecturers indicated that, there is no discipline among students at the University; whereas 14% of the lecturers were undecided 27% of lecturers felt that there is high discipline among students. In item 13, 42% of the lecturers indicated that there are no good interpersonal relations between students and lecturers, while 44% of the lecturers felt good interpersonal relations exists. In item 14, whereas 28% of the lecturers disagreed with the point that good classroom discipline can contribute to quality learning, 66% of the lecturers were positive that good classroom discipline can contribute to good classroom quality learning.

The issue of what discipline entails, is one which requires proper understanding of its concepts and role. The word discipline comes from a Latin word meaning 'to learn'. From the same Latin word disciple meaning 'one who learn(s) from the master' derived (Castle, 1993). Castle explains that people often think of discipline as punishment which is quite wrong, so educators need to take into consideration that discipline forms a very large part of education. Without it, teaching and learning cannot take place. What is clear from Castle is that, institutions are required to encourage self discipline in learners as against externally imposed discipline. Since the results have revealed that there is some lack of discipline in learners, institutions should be concerned with this area as it has some impact on optimizing quality.

Suggestions for education quality improvement

The lecturers were asked to state one way by which educational quality can be improved in their university. Some of the important suggestions provided by them are summarized according to their voices as follows:

o Students should be involved in decision making by the University Management.
o Books are too expensive beyond the reach of students.
o There is need to increase the number of lecturers to improve students-lecturer ratio and avoid overcrowding of lecture rooms.
o The lecturers should stop spoon feeding students and encourage student-centered learning.
o Library should operate 24 h to enable learners' access anytime.

○ General Education Courses (GEC) should be stopped since they are irrelevant and only over burdening learners.

○ The number of computers and printers should be increased at the university.

○ Put more emphasis on relevant, applicable, practical and convertible skills for self reliance.

○ The University should provide proper incentives for work published.

Even though these may not be exhaustive, some of these suggestions may have high capacity for enhancing quality education at the university. As quality assurance is concerned with disseminating best practice towards improvement of education, contribution by lecturers should be seen as strategies to help institutions make great improvements.

Conclusion

The results in this study reveal the following:

1. Concerning resources quality dimension, it appears that the respondents are disadvantaged by scarce resources as evidenced by 73% who have expressed that the ratio of students to lecturers is not very good. Similarly, 66% of the respondents have indicated that facilities available at the university are inadequate.

2. The other positive observation made is that courses offered are very relevant for students; however the mere relevance of courses may not mean much in a situation deficient of necessary resources for teaching and learning.

3. On teaching and learning there is still need to ensure the transformation of the pedagogy into a learner centered paradigm. High numbers of respondents (85%) tend to agree that students need to take an active role in their own learning.

4. Concerning research the observation is that there is low level of commitment to it in terms of funding. This really requires the University to look into this matter as funding plays a big role in this quality area.

5. Concerning leadership respondents (53%) feel that current organizational climate falls short of affording opportunities for developing leadership. Also 56% of the respondents feel that students are not exposed to a good organisational climate for enhancing quality learning.

6. Concerning discipline while 66% of the respondents feel that good classroom can contribute to quality learning, 59% of the respondents in another item express that there is no discipline among students. The institution need to be concerned about this area of discipline as it an important area for nurturing quality as corroborated by

some of the related literature reviewed (Castle, 1993; Fuller, 1991)

7. The open ended statements to the study have indicated suggestions which are extremely necessary for education quality improvement. These suggestions need to be taken into account to ensure education effecti-veness and quality.

The paper has identified five key quality areas that can serve as an information base for quality performance for our universities. These key areas may not be universal and applicable for all situations but can be modified to suit specific contextual demands. In addition these key areas should be seen to be in a dynamic interrelationship as failure in one part can affect the other parts

The only limitation to our study is that its findings cannot be generalized to other similar institutions internationally. This is due to the fact that the study was confined to one university. Therefore, we suggest that a similar study drawing comparisons from a number of universities in different environments may need to be conducted to allow evaluating and validating the proper position of Botswana.

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