Science academics’ perceptions of quality and the practice of quality promotion and quality assurance procedures in higher education: A case study

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ABSTRACT
This paper investigates, through a case study, a forgotten aspect in quality in higher education, viz. the perception of academics. From this perspective, it explores general quality promotion (QP), quality assurance (QA), quality control (QC) and quality management (QM) strategies at the institutional level of a Historically Disadvantaged University (HDU), its Faculty of Science, four of its departments as well as individual academics. The study found that only 50% of the academics had some conception of quality higher education as described in the literature. The overall conclusion was that university-, Faculty- and department-wide QA systems and self-assessments did not exist. No formal QA or QC mechanisms and related strategies were in place at the institution, its Faculty of Science or the four investigated departments. Furthermore, the academics interviewed rarely practised formal QA, QP, QC and QM procedures.

INTRODUCTION
Many papers have been presented at conferences and articles published nationally and internationally on quality in higher education (QHE). However, no reports of higher education (HE) academics’ perceptions of QHE have been discovered. This paper addresses that deficiency. The purposes of this case study were (i) to gauge the science academics’ perceptions of QHE and (ii) investigate the general quality promotion (QP), quality assurance (QA), quality control (QC) and quality management (QM) strategies at the institutional level of the HDU, its Faculty of Science, four of its departments and by individual academics.

QUALITY IN HIGHER EDUCATION
It is difficult to define the term ‘quality in higher education’ (QHE). There are many perspectives, which are mostly set in differing academic, political and socio-economic contexts (Rear, 1992; Shippey, 1992; Retief, 1992; Harvey and Green, 1993; Birnbaum, 1994). Rear (1992: 87) observes that ‘... the meaning of quality is not clear’ whereas to Shippey (1992: 380), ‘... the definition of quality is certainly not absolute.’ Birnbaum (1994) notes that the idea of quality is based on the ‘goodness’ of specified educational characteristics and that the relative importance of these characteristics varies when viewed through the frameworks of the head of an institution, academics, parents or students. Birnbaum (1994) discusses various perceptions of quality, classifies them into absolutist or relativistic criteria and concludes that the various dimensions of quality often have structural or procedural requirements that are in conflict and so, finally leaves quality undefined.

Rear (1992) observes that a consideration of QHE involves standards (‘standard’ is defined as a chosen basis of measurement). Mambo (1992) adds that inputs such as the numbers and qualifications of full time
lecturing staff, student-lecturer contact hours, state of libraries and laboratories, staff turnover, staff morale, quality of qualifying examinations, etc., do have an impact on QHE. Nevertheless, he criticises perceiving quality in terms of inputs. Instead, he suggests that quality should be assessed in terms of outputs such as diversity of programmes, examination results and satisfaction of the labour market.

Retief (1992) perceives quality in terms of a variety of factors: educational outcomes, educational processes and inputs, international demands of the discipline, goals and objectives of a specific programme, institutional regulation, measurable student achievements and completion or exit requirements. Shippey (1992), on the other hand, perceives quality in relation to the price paid and observes that as the state grant per student decreases, quality decreases. Within the South African context, quality is also perceived by some academics in terms of the historical contexts of the higher education institutions (HEIs). For example, Godden (1992: 40) succinctly captures this perception in his contention that, ‘... how the quality of institution, indeed, of faculties and departments within universities, is to be assessed, is historically specific.’ Nonetheless, Ball (Shippey 1992) observes that a serious concern about quality itself in an institution is the best quality indicator.

It is evident from the above examples that it is rather difficult to define QHE. Fourie, Strydom and Stetor (1999: xiii) concur with this observation when they state ‘... there are vast methodological difficulties in defining quality in higher education, and these difficulties are exacerbated when comparing quality internationally.’ Indeed, some academics argue that QHE should have different meanings in different cultures and contexts (Harvey and Green, 1993). Also, it has been argued that there would be nothing wrong in different stakeholders (such as academics, students, funders and industries) in HE emphasising different aspects in the definitions of QHE. Thus, attempts to give a single definition would be a futile exercise. As Brennan, de Vries and William (1997: 9) ask, ‘is the quality of a lecture to be assessed in terms of the importance of its ideas or the clarity of its exposition? Of course, the answer is both but the balance between the two will be emphasised differently by different people ... academic staff, students and administrators will all see and emphasise different things. And there is no more reason to expect consensus within groups than there is to expect it between them. Quality in higher education is a multi-dimensional concept and any attempt to legislate a single definition seems bound to end in failure.’

It has been seen that some academics see quality as ‘implicit and indefinable’ due to the absence of ‘an absolute value or measure’ while others see it as satisfactory ‘conformance to some pre-defined standard’. The main problem is that quality is neither absolute nor static and so its components vary according to the area of study and the purpose of qualification. Nonetheless, quality ought to be an inseparable part of HE to enhance its effectiveness and efficiency.

Rather than looking for a single definition for QHE, one should look at the different perceptions it entails. In an attempt to summarise literature on defining QHE, Singh (1999: 7) cites what are termed as the ‘five key approaches’ to quality in education. It could be argued that the word ‘perspectives’ (mental views of the relative importance of things) or even ‘perceptions’ (intuitive recognition of truth) describes them rather better than the word ‘approaches’ (the way of dealing with a thing). These five key perceptions of quality in the definitions are cast in terms of: (i) ‘exceptional’, perception of quality as ‘something special and is linked to excellence’. This is a rather traditional perspective of quality and is based on surpassing certain ‘standards’; (ii) ‘perfection’, this perception relies on consistency and can be related to the slogan that the Matsushita Electric Trading Company of Japan (which manufactures the ‘National’ and ‘Panasonic’ trademark products) uses in their advertisements - ‘zero defect’, i.e. getting it right the first time and every time. This perspective focuses on processes and sets specifications to be met; (iii) ‘fitness for purpose’, perceiving quality as meeting the vision, mission, aims and objectives as stated or as fulfilling consumer (customer) needs; (iv) ‘value for money’, perception of quality to justify the high cost of education or as a return on investment, a perspective based on the notion of accountability to those who pay for education, the state, other funders, parents or students, who also may demand value for the time they spend; (v)
‘transformation’, perceiving quality in terms of the ability to bring about a change of institutional ethos, vision and mission, aims and objectives, teaching and learning styles, changes in assessment means and modes. This is a perspective based on enhancing the student and empowering them to be lifelong learners, i.e. to give students the ability to ‘learn to learn’ on the one hand, and changing the institution from an apartheid past to a ‘democratic’ future in the South African context, on the other hand. This is a much broader perception of transformation than the narrow one of seeing only the transformation of students, as portrayed in most articles on perceptions of quality internationally (for example, Harvey and Green, 1993) or nationally in South Africa (for example, Luckett and Kotecha, 2000).

Van der Merwe (2000: 82) observes that transformation involves much more than the reconstruction of social structures and institutions but also requires fundamental changes in respect of attitudes and relationships. ‘These changes are not only between people, but also between man and his physical environment ... essentially transformation requires a paradigm shift, the abandoning of old ways of knowing and doing and an adoption of a new, broader definition of reality.’ Reddy (1998) as reported in van der Merwe (op cit) portrays the practical manifestation of transformation in the South African context as, inter alia, the empowerment of the unempowered, addressing race and gender inequalities, the balance of power and emphasising common interests rather than exclusive interests. The transformative perspective must ultimately originate and sustain in every individual; administrator, academic and student, for it to succeed.

In summary, the various perspectives of the concept of QHE cited in the literature are: excellence; high standards; consistency; a quest for zero defect in meeting pre-set specifications; fitness for purpose; achieving the vision, mission, aims, objectives and expected outcomes; value for money; accountability; and finally, transformation; enhancing and empowering the student.

OPERATIONAL DEFINITION OF QHE AND ITS JUSTIFICATION

For the purpose of the present paper, QHE is defined as ‘the capacity to respond actively to the needs of local contexts within South Africa, making effective and efficient use of the available resources to achieve pre-defined goals and purposes for which students are enrolled, and to enable students to acquire a qualification that conforms to comparable national and international standards.’ This definition broadly acknowledges the perceptions of quality in terms of ‘transformation’, ‘fitness for purpose’, ‘value for money’ and finally, ‘perfection or consistency’. It acknowledges the need to maintain quality while achieving diversity. Diversity originates from a quest to redress past inequalities by expanding HE to enable previously disadvantaged (and excluded groups) to access the system. It is generally accepted that there is not going to be any notable change in the quality of students who apply and get admitted to HE. This being the case, there would be (and should be) a university-wide recognition of a transformative model of conception of quality rather than an absolutist conception of quality. The absolutist conception is based on a transmission model of teaching and learning where the academics deliver lectures and the students are passive receivers of knowledge.

A transformative model in which the conception of quality implies a facilitative model of teaching and learning should be the focus. In the facilitative model, academics are dialectically engaged in a process of transforming and constructing knowledge and the whole spectrum of teaching and learning is student-centred. In such a context, a two-way active feedback between the students and academics becomes significant. The students on the one hand, have opportunities to close broken networks in their knowledge and to construct and integrate knowledge, and on the other hand, academics re-design the ways in which they presently communicate to students. The teaching methods must conform to a transformative model of quality where academics take pains to grapple with the low level subject mastery with which students enter HE, go down to their level and promote student enterprise, student autonomy and enhance co-operative and consultative learning. Thus, the perception of quality as transformation became most significant in the specific context of the HDU in which the present research was done. The transformation concept should also continue to be the focus in post-1994 South African HE.
Furthermore, such a transformation model involves capacity building to enable academic staff to cope with transformation (Reddy, 1998). Imenda (1995) goes a step further and emphasises the need for enhancing capacity building for students to cope with HE demands, in order to ensure that more numbers should not mean decreasing quality. Imenda (1995: 181) echoes the need for institutional change when he observes, ‘... the notion that it is only the students who should strive to meet the requirements of academic institutions can not help universities, technikons and other tertiary institutions to cope with the task of giving students meaningful and appropriate instruction.’ It is more important that institutions themselves change (through modifications to their programmes of study and the perceptions of academic staff) in order to accommodate the peculiar circumstances of their students, than for them [institutions] to continue to exert pressure on students to fit unchanging university standards. The contention is that in the South African context, capacity building of academics and students as well as institutional transformation, are pertinent for the transformative perspective to succeed.

**THE CONCERN FOR QHE**

The concern for quality, QA, QP, QC and total quality management (TQM) in HE has been gaining priority attention from educationalists and governments in recent years (Harvey, Green and Burrows, 1993; Singh, 1999; Fourie, Strydom and Stetor, 1999). Definitions and explanations of QA, QC and TQM in the context of HE are succinctly recorded in the literature (Ellis, 1993). The coordinated concern for QHE is evident internationally. Brennan, de Vries and Williams (1997: 171), for example, observe that, ‘... within Europe, both the European Commission [EC], and the Association of European Rectors [CRE] have initiated development work in this field. The Organisation for Economic Co-operation and Development (OECD), through its programme on Institutional Management in Higher Education (IMHE) has a project that extends from Europe to America and Australia. In addition, the United Nations Educational, Scientific and Cultural Organisation (UNESCO) has supported activity in this field at its European Centre for Higher Education (CEPES) and the various quality agencies have formed on international body, the International Network for Quality Assurance in Higher Education (INQAAHE).’ The establishment of QA units has been gaining unprecedented support in recent years (South African Qualification Authority [SAQA], 1995; National Commission into Higher Education [NCHE], 1996). The SAQA Act (DoE, 1995), the NCHE Report (1996), and the subsequent establishment of the Higher Education Quality Committee (HEQC) have laid the foundation for QA in the post-apartheid South African HE.

**THE NEED TO GATHER PERCEPTIONS ON QUALITY IN HIGHER EDUCATION**

Each individual constructs a reality around him or her and operates and reacts to that reality. A person’s own perceptions and opinions influence the way he or she acts and reacts. According to Cohen and Manion (1989: 27), ‘... (the) social world can only be understood from the standpoint of the individuals who are part of the ongoing action being investigated ... ’ As such, participants’ perceptions are important to understand the context, process and the product of any human endeavour in general, and in the teaching and learning context in particular.

An understanding of the concept QHE by academics is important. Cohen and Manion (1989: 26) argue that ‘... man can and does construct theories about himself and his world; moreover, he acts on these theories.’ Also, in a phenomenological perspective, looking beyond ‘the details of everyday life to the essences underlying them’ is crucial (Cohen and Manion, 1989: 31). The academics’ perceptions on QHE is, therefore, a significant factor in understanding the way they act in performing their professional roles and duties. This is especially so in the context of the different perceptions of QHE and the concern for quality as HE academics’ efforts are informed and influenced by their perceptions of QHE and their concern for quality. Nonetheless, as stated earlier, no literature could be found on HE academics’ actual perceptions on QHE.
General QA, QP, QC and QM policies and practices for HE institutions, their Faculties, departments and individual academics

The distilled factors from the literature cited earlier, point to some general QA, QP, QC and QM and practices, inter alia, for HE institutions, their Faculties, departments and individual academics. Some general QA, QP, QC and QM factors at the institutional/Faculty level are, inter alia,

- conformity with the institution’s/Faculty’s vision statement
- conformity with the institution’s/Faculty’s mission statement
- evaluation of the institution’s/Faculty’s learning environment
- good selection procedure for academic managers (Dean, Vice-Dean, Heads of Departments (HoDs), and academics
- setting key performance indicators (KPIs) and measuring quality against KPIs and pre-defined standards
- Dean/Vice-Dean regularly monitoring the quality of academic activity in the departments in the Faculty
- Dean/Vice-Dean regularly monitoring the quality of student work in the departments in the Faculty
- institutional/wide self-assessment
- student evaluation of academics
- clear statement of objectives and outcomes in courses and assessing if these were achieved
- facilitating participation of all stakeholders.

General QA, QP, QC and QM factors at the department level are, inter alia,

- conformity with the institution’s/Faculty’s as well as department’s vision and mission statements
- HoD regularly monitoring the quality of academic activity in the department
- HoD regularly monitoring the quality of student work
- good selection procedure to choose academics
- regular departmental reports on student absenteeism, good/poor performances
- constant monitoring of the moderation of assessment instruments and providing guidance
- active monitoring of the quality of academic-student feedback
- frequent self-assessment within the department
- reports from academics to the HoD on student absenteeism in academic activities
- reports on constant poor or sustained good student performance
- review problems in departmental staff meetings
- planned academic programmes
- department-directed monitoring of assessment instruments and guidance where necessary
- monitoring of student feedback and action and advice on the findings.

General QA, QP, QC and QM factors and procedures at individual academic’s level are, inter alia,

- regularly monitoring the quality of students’ academic activities
- regularly monitoring the quality of student work
- regularly monitoring and recording student absenteeism
- reflecting on student performance and ways to improve it
- implementing good staff/student feedback and reflecting on how to cope with identified academics’ and students’ weaknesses.

METHODOLOGY

Research design and the sample

This research was a case study. Gathering data on opinions, perceptions and responses from the participants in the educational processes directly, by interviewing them where possible, was considered appropriate to provide insight into QA, QP, QC and QM. The data collected by direct contact between the researcher and participants ensures clarity in the meaning of questions and answers gathered. Furthermore, the direct
interactions between the researcher and participants provide an opportunity for them to learn from each other. Research methods, such as the interview where the researcher is an active participant, are considered as more appropriate in case studies than the methods used in experimental designs. For quality improvement, as an emerging discipline in HE, it is important to capture experiences, observations and opinions to add to the rapidly accumulating knowledge base in the discipline. The sample upon which the research is done is an important factor in social research (Cohen and Manion, 1989). As such, a description of the sample, including their gender, age and background, in any meaningful research is necessary. These aspects have influences and implications on the gathered data.

In 2000, there were 47 academics employed in the Faculty of Science in the four departments of the HDU investigated in this study: Physics (11 or 23%), Chemistry (15 or 32%), Zoology (10 or 21%) and Botany (11 or 23%). Out of the 47 academics, 28 (60%) participated in the study. Five academics refused to take part without giving any reason and amongst them was one Head of Department. In ascending order of participation of academics per department were: Botany (5/11 or 45%); Physics (6/11 or 55%); Chemistry (9/15 or 60%); Zoology (10/15 or 65%).

The population consisted of 31 (66%) male and 16 (34%) female academics representing a male to female ratio of about 2:1. The sample consisted of 20 (71%) male and 8 (29%) female academics representing a male to female ratio of 2.5:1. Thus, in terms of gender, the sample was highly representative of the population. The academics were aged between 26 and 65 years with a majority (17/25 or 55%) in the 41 to 55 year age group. The distribution of the sample in terms of rank was as follows: Professor: 2 (7%); Associate Professor: 6 (21%); Senior Lecturer: 3 (11%); Lecturer ‘A’: 4 (14%), Lecturer: 6 (21%); Research Associate (also teaching): 1 (4%); Junior Lecturer: 2 (7%); Senior Laboratory Assistant: 3 (11%); Laboratory Assistant: 1 (4%). The distribution of the highest qualification in the field of the subject of specialisation, was as follows: Doctorate: 17 (61%); Masters: 7 (25%); Honours: 3 (11%); Bachelor degree: 1 (4%). Out of the 28 academics, eight (29%) also had qualifications in the field of education. The total teaching experience of the academics’ sample ranged from less than 2 years to 10 years or more. Out of the 28 academics, 23 (82%) had at least ten years’ teaching experience. In summary, there were 28 academics in the sample with a majority in the 41–50 age group. The male to female ratio was 2.5:1. The academics were well qualified; 60% had doctoral degrees. The academics were experienced: 82% had at least ten years’ teaching experience.

Sampling
Hitchcock and Hughes (1989) observe that the two main ways to sample a population for interviews are quota sampling and random sampling. The former focuses on a specified percentage or quota from the population with respect to keeping proportional numbers of men and women, comparable ages and social backgrounds. In contrast, random sampling is based upon probability theory and refers to the procedure, whereby the research sample is randomly selected (with the assumption that all members of the population have an equal opportunity to be selected). Neither of the sample procedures put forth by Hitchcock and Hughes could be used in this study to select the research sample. The characteristics necessary for quota sampling or random sampling could not be applied as the population of academics was small, 50 in all. Hence, there were inadequate numbers within this small population to sample on the basis of gender, age, academic qualification and teaching experience. Therefore, the present researcher had to depend upon a sample of volunteering academics in the four departments. Nonetheless, every effort was made to gain the confidence and willingness of all the academics to participate in the research. The good personal relationships that existed between the researcher (then an academic at the institution where the research was carried out) and most academics in the four departments investigated, contributed significantly towards the majority of academics from the four departments participating in the study. It is gratifying that about 60%, i.e. 28 out of 47 academics took part in the study.
There were two recent studies in South Africa, one on the quality of support units in an HEI (Parsons, 1999) and the other on assessment of quality in the management of instructional offerings (Du Toit, 2001). Nevertheless, the researcher did not find instruments that could be employed to undertake an investigation of the present nature. The instrument used (see Appendix) consisted of a battery of one-to-one interview questions. As an existing questionnaire could not be found, a suitable one had to be designed. The initially designed instrument was used to interview eight colleagues, two from each of the four departments chosen through what Cohen and Manion (1989) denote as ‘purposive sampling’. This sampling technique allowed the present researcher to handpick the academics to be included in the sample on the basis of his judgement of their typicality, thus building up a sample that was considered satisfactory to the specific need.

To collect data from academics, one-to-one interviews were employed. The term ‘interview’ as used in this research, refers to verbal interactions between the researcher who sought the information and a member of the sample who willingly supplied the information. Data collected through qualitative methods such as interviews can reveal the interpretations, meanings and perspectives, which the role players assign to concepts, events and situations to describe the state of reality (Hitchcock and Hughes, 1989; Cohen and Manion, 1989). Furthermore, discussions and deliberations help to bring forth more consistency in meanings than through a ‘complete and return questionnaire’ mode (Rolph and Rolph, 1989). Interviews with academics were preferred in this research rather than using a written questionnaire to elicit information because interviews provide more opportunities for probing information and for consolidating consensus in meaning and explanations of words and terms used.

The purpose of interviews at the initial stage was to check if the items in the instrument were able to elicit academics’ responses relevant to an item. It was found that the items were valid in that they served the purpose for which they were designed. Through the pilot study, the present researcher was satisfied with the validity with respect to the content of relevant factors to answer the research questions (content-validity) and the validity with respect to achieving the research objectives (purpose-validity) in the instrument was satisfactory. Hence, no modification was made to the instrument used in the pilot study for its later use.

The instrument consisted of structured and open-ended items. While the structured items that were used to collect demographic data provided a systematic approach to data collection, the open-ended items provided opportunities for probing information, consensus in meaning and explanations of words used. The structured items were designed with fixed options for responses, some with two options and others with multiple options to choose from, depending on the nature and type of data to be elicited.

Data Collection

Data was collected through interviewing academics. An appointment for a period of 2 x 1½ hour sessions was made with each member of the sample for the interview for the mega study (Mammen, 2003) and the completion of the data collection took about 40 minutes in the first of the two sessions. Efforts were made to interview each academic in his or her office at a time most convenient to him or her. The researcher interviewed the academics using the instrument. An audio tape recorder was used to record the interviews. Responses were audiorecorded in cases where the interviewee gave consent. Three interviews were not recorded due to lack of consent. During the interview the interviewer entered all verbal responses of an interviewee by hand; those for the open-ended items and also for items with fixed options. The audiorecorded interviews were useful for the researcher to reconfirm his written records.

For the sake of collecting as much information as possible, the researcher gave a verbal undertaking to each academic that the name of the academic would be coded and would not be revealed to anybody. During the initial part of the interview, questions were asked to gather demographic information such as
gender, age, qualification, work experience, etc., from the academics. The second part of the interview in the instrument focused on gathering data on their perceptions on QHE and general QA, QP, QC and QM policies in the institution, its Faculty of Science, its four departments and those actually implemented by individual academics.

The open-ended items supplied a frame of reference for interviewee’s answers but the interviewer exercised restraint, if and when, an interviewee showed signs of digression. Otherwise, there was no restriction on the manner in which the interviewees responded. At the end of the interview and completion of data collection, the various perceptions of quality as described under the earlier heading ‘QHE’, the factors under the heading ‘the concern for quality’ in this paper as well as possible QA mechanisms and processes at institutional, Faculty, departmental and individual levels were explained by the interviewer to each academic interviewee on a one-to-one basis.

RESULTS AND DISCUSSION

Academics’ perceptions of QHE

As shown in Table 1, only about 55% (18/33) academics’ responses showed a conception of QHE as described in the literature, for example, Ellis (1993) or Singh (1999). The 18 responses were from 14/28 (50%) academics as some academics gave more than one perception. In a period of global transformation of HE, about 20% (5/28) academics had no conception of QHE. In an HDU that admits mostly disadvantaged students, no academic had the ‘transformation’ concept of quality. Ten out of the 18 ‘acceptable’ responses reflected the generally ‘global’ (Ellis, 1993) conception of quality in terms of high standards. It was interesting to note that some academics had more than one perception.

Academics’ perceptions of QHE in the South African context are important in terms of national policies. Efforts need to be made to make them literate in this aspect. A person’s perspective directs his or her actions and clarity in the perspective is essential for purposeful progress. As Waghid (2000: 101) observes, ‘… as academics, we first need to clarify what it means for higher education institutions, more specifically universities, to organise their practices in meeting the demands posed by changing local, national and global educational contexts. To say that we can implement higher education policy frameworks is not sufficient without first developing a clear, more informed and rational opinion about the current shifts in higher education transformation in South Africa.’

In the above context, it is clearly a matter of concern that despite the age-wise maturity of the sample, high qualifications, which were also complemented with long-term experience in the HE field, only 50% of the sample held conceptions of QHE relevant in the literature. Inadequate opportunities for exposure of academics to QHE factors may be, inter alia, the cause of this finding.
General QA policies in the institution and Faculty of Science

Table 2
Quality assurance and quality control mechanisms in the Faculty of Science

<table>
<thead>
<tr>
<th>None</th>
<th>Good selection procedure for staff</th>
<th>Dean/ Viced-Dean regularly monitoring the quality of staff academic activity</th>
<th>Dean/ Viced-Dean regularly monitoring the quality of student work</th>
<th>Regular departmental report on student absenteeism/ constant good/poor performances</th>
<th>Regular monitoring of the moderation of assessment instruments and providing guidance</th>
<th>Regular monitoring of the quality of staff/student feed-back</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>27 (96%)</td>
<td>1 (4%)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>28</td>
</tr>
</tbody>
</table>

Table 2 depicts the data gathered on the QA and QC mechanisms in the institution and Faculty respectively. The data shows that 27/28 (96%) academics confirmed the absence of university- and Faculty-wide QA mechanisms. In this context only one academic pointed out good selection procedure for academic entrants to the Faculty as a relevant factor.

General QA policies in the departments

Table 3
Quality assurance and quality control mechanisms in the departments in the Faculty of Science

<table>
<thead>
<tr>
<th>None</th>
<th>Review problems in staff meetings/planned academic programmes/tests &amp; exams (1 each)</th>
<th>HoD regularly monitoring the quality of staff academic activity</th>
<th>HoD regularly monitoring the quality of student work</th>
<th>Regular staff report on student absenteeism/constant good/poor performance</th>
<th>Regular monitoring of the moderation of assessment instruments and providing guidance</th>
<th>Regular monitoring of the quality of staff/student feed-back</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>25 (89%)</td>
<td>3 (11%)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>28</td>
</tr>
</tbody>
</table>

Table 3 gives data on some QA and QC mechanisms in the departments. Although 25/28 (89%) of the academics stated ‘none’, 3/28 (11%) pointed out that there were reviews in place: reviews of problems through staff meetings; planned academic programmes; and tests and examinations. Reviews and actions on the discovered weaknesses were useful but there could have been many others such as conformity with the department’s vision and mission statements, and the HoD frequently monitoring the quality of academics’ activity and student work.

Table 4 gives data on some QA, QC and QP procedures in the academics’ work as educators and the number of academics’ responses to each of them. The data shows that 23/28 (82%) academics responded that there was no formal QA mechanism in their work as educators. However, 5/28 (18%) stated that they adopted mechanisms that in some way contributed to QA. The ‘other’ mechanisms are shown in Table 5 and may be regarded as informal QA mechanisms.
Application of QA mechanisms, quality directions and QP procedures by academics

Table 4
Quality assurance, quality control and quality improvement mechanisms in the academic's work as an educator

<table>
<thead>
<tr>
<th>Regularly monitoring the quality of the students’ academic activities</th>
<th>Regularly monitoring the quality of student work</th>
<th>Regularly monitoring and recording student absenteeism/ good/poor performance</th>
<th>Reflecting on student performance and ways to improve them</th>
<th>Implementing good staff/ student feed-back and reflecting on how to cope with weakness</th>
<th>Other mechanism*</th>
<th>None</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>5 (18%)</td>
<td>23 (23%)</td>
<td>28</td>
</tr>
</tbody>
</table>

Table 5
Classification of other quality assurance mechanisms in the academic’s work as an educator

<table>
<thead>
<tr>
<th>Reflecting if I gave my best</th>
<th>Reacting to student feed-back</th>
<th>Mental aim</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 (40%)</td>
<td>2 (40%)</td>
<td>1 (20%)</td>
<td>5</td>
</tr>
</tbody>
</table>

Numbers and % out of a total number of responses

There were three comments. These are shown in Table 6.

Table 6
Classification of academics’ comments in the context of quality assurance mechanisms in the academics’ work as educators

<table>
<thead>
<tr>
<th>‘Never thought about the quality of what I do’</th>
<th>‘When I returned to the department (after a long spell in my other job, I struggled - it was very difficult - (also) had the same difficulty in understanding the ethos in the department’</th>
<th>‘In the University of Botswana (where I worked), interactions with colleagues, cross checking and learning were more’</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 (33%)</td>
<td>2 (33%)</td>
<td>1 (33%)</td>
</tr>
</tbody>
</table>

*Numbers and % out of a total number of responses

One academic stated that he never thought of the quality of what he did. Another stated, ‘... when I returned to the department, after a long spell in my other job, I struggled – it was very difficult – (also) had the same difficulty in understanding the ethos in the department.’ This comment implied that some QA mechanisms were in place, before he left for his other job. However, on further questioning, it was discovered that there was no formal mechanism in place before he left and the comment was a result of comparing the local state of affairs to what he saw at the other institution. He did not do anything to rectify the situation, so his department did not benefit from his experience at another institution. A third academic stated that at another university where he worked, there was good interaction with colleagues, more cross-checking of each others’ work; and opportunities for interactive learning from each other. Nonetheless, despite being a HoD, he too failed to introduce such an ethos in his department and his good experience did not serve to benefit his department or the Faculty. One point that needs to be made is that academics need to share their rich and constructive experiences with their colleagues to improve the quality of the institution.
CONCLUSIONS AND RECOMMENDATIONS

The various perceptions of QHE as well as the concern for quality nationally and internationally have been discussed. The need for focusing on a transformative model without ignoring the other perspectives of QHE has been elaborated. Only 50% of the sample had some conception of QHE as described in the literature. It is clearly a matter of concern that despite the age-wise maturity of the sample, their high qualifications, which were also complemented with long-term experience in the HE field, only 50% of the sample held conceptions of QHE relevant in the literature. Inadequate opportunities for exposure of HE academics to QHE factors may be, inter alia, the cause of this finding. Also, the quality of HE implementation by academics who themselves do not have acceptable perceptions of QHE (on which HE is founded) as described in the literature may not do well for their employer, students, and the educational endeavour of the country at regional and national levels.

The overall conclusion was that university-, Faculty- and department-wide QA systems and self-assessments did not exist. No formal QA or QC mechanisms and related strategies were in place at the institution, its Faculty of Science and the four investigated departments. The academics rarely practised formal QA, QC, QP and QM procedures. The reported finding of the state of affairs, at least in one Faculty based on research data, should send a warning signal to the institutional management to review its staff development strategies, its QA, QC, QM and TQM policies, practices and procedures. Even small efforts such as those reported in this study (discussing perceptions of QHE and general quality practices and procedures) are useful in staff development as a large majority of academics indicated that the interview was either very useful or useful in educator development, understanding the concepts in the principle of quality assurance and making one a better lecturer/educator (Mammen, 2003).

Staff development workshops need to be organised within the institution to enable academics to become familiar with QHE. As this research focused only on one Faculty of an HDU, its findings cannot be generalised to other Faculties within the same institution or to other institutions in South Africa or elsewhere. Similar research needs to be extended to other Faculties within the institution as those actually implemented at institution-, Faculty- and department-wide levels and by HE academics at individual levels while discharging their educator duties and obligations. Collating institutional, regional and national data can direct staff development activities, if need be, based on such valuable data.

National and international seminars and conferences on QHE rarely promote quality at grassroots level. Therefore, institutional management must insist that those who are fortunate to attend QHE conferences must serve as a catalyst for institution-, Faculty- and department-wide staff development activities on QHE. Structures and systems to promote QHE, if non-existent, must be created so that quality penetrates to the grassroots level in academics’ activities. Furthermore, QA, QC, QP and QM activities are ongoing processes and the progress must be measured against pre-set KPIs within desirable timeframes.

REFERENCES


Parsons, P.G. 1999. ‘Evaluation of support units’ Assessment & Evaluation in Higher and Further Education Workshop, 4-6 August, Stellenbosch, South Africa.


APPENDIX
(Data collection instrument)

1. DEMOGRAPHIC DATA

<table>
<thead>
<tr>
<th>1 Name:</th>
<th>Surname:</th>
<th>Initials:</th>
<th>2 Gender</th>
<th>M</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>The name will not be released to anyone. However, your name is required to code it to a number, in case further investigations by the researcher are necessary. Notwithstanding the above, you are free NOT to give your name if you so wish.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2 Age</th>
<th>&gt;65</th>
<th>61-65</th>
<th>56-60</th>
<th>51-55</th>
<th>46-50</th>
<th>41-45</th>
<th>36-40</th>
<th>31-35</th>
<th>26-30</th>
<th>21-25</th>
<th>&lt;21</th>
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</table>

<table>
<thead>
<tr>
<th>4 Highest Qualification</th>
<th>4.1. Subject: Phys/Chem/Zoo/Bot</th>
<th>Ph.D. / M.Sc / BSc (Hons)</th>
<th>B.Sc/Dip</th>
<th>Other</th>
<th>Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.2. Education: D.Ed / M.Ed / B.Ed / HDE (pg) / STC / STD / PTD</td>
<td>Other</td>
<td>Country</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5 Total teaching experience</th>
<th>&gt;10yrs</th>
<th>≥8yrs</th>
<th>≥6yrs</th>
<th>≥4yrs</th>
<th>≥2yrs</th>
<th>≥1yr</th>
<th>&lt;1yr</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 Length of service (Unitra)</td>
<td>&gt;10yrs</td>
<td>≥8yrs</td>
<td>≥6yrs</td>
<td>≥4yrs</td>
<td>≥2yrs</td>
<td>≥1yr</td>
<td>&lt;1yr</td>
</tr>
</tbody>
</table>

2. PERCEPTIONS OF QUALITY IN HIGHER EDUCATION AND QUALITY MANAGEMENT/ASSURANCE MECHANISMS

2.1 What do you understand by quality in higher education?

2.2 What quality assurance mechanisms are in place?

2.2.1.1 in your Faculty?

2.2.1.2 in your dept.?

2.2.1.3 in your own work as an educator?

3. ACADEMICS’ COMMENTS ON THE USEFULNESS OF THE INTERVIEW ON EDUCATOR DEVELOPMENT, QUALITY ASSURANCE AND MAKING ONE A BETTER ACADEMIC.

What are your comments on the usefulness of the interview on educator development, quality assurance and making one a better academic?

THANK YOU FOR YOUR TIME, PATIENCE, CO-OPERATION AND ASSISTANCE. IT WAS VERY KIND OF YOU.

* Relevant extract from Mammen (2003)