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Programme review guidelines for quality assurance in higher education

A South African perspective

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Abstract *All educators should reflect on and assess the quality of their teaching and their learning programmes. Such reflection is the subject of this article. The focus is on higher education (HE) with particular emphasis on distance learning institutions. A particular educational programme is considered, namely a course-work Master's degree in environmental education at a South African distance learning university. Sustainable living is one of the envisaged outcomes of this programme. This article gives a general perspective on quality assurance in HE. The views of a number of authors are discussed, with special reference to HE in the cultural diversity of South Africa. Various approaches and factors that influence learning assessment are discussed. The theme of sustainability as integrated in HE programmes is emphasised as one of the criteria that should determine quality in education programmes. It is concluded that, although programme assessment is a difficult process and necessarily contextualised, it is an important tool for ensuring quality teaching and learning. Programme assessment is a form of critical self-evaluation that includes peer evaluation and evaluative input from students.*

Rationale and problem statement

In the preamble to the Higher Education Act (Act no.101 of 1997) (South Africa, 1997) as enacted in South Africa, the Council on Higher Education (CHE) points out the desirability of pursuing excellence and realising the full potential of every student and functionary involved in higher education. Consequently, since 1997 quality assurance in higher education has been the main function of the Higher Education Quality Committee (HEQC) of the CHE. Furthermore, in terms of the above-mentioned Act it is also incumbent on institutions of higher education in South Africa to ensure that internal and external quality assurance mechanisms are in place in such institutions. This ought to be reflected in all activities, including the development and delivery of programmes. Programmes offered by schools or faculties must be assessed regularly, and the focus should be on teaching and learning systems, as well as on processes and outcomes of higher education provision.

This paper is based on research into the reviewing and assessment of educational programmes. The research included an investigation into national and international quality assurance models and the procedures, techniques and strategies relating to quality assurance and quality enhancement. This article includes a report on the research findings and a framework of effective programme assessment. A follow-up article is planned that will deal with the application of this framework to the case of a course work masters degree in environmental education.

Aims and objectives of the research project

Most, if not all academic institutions, regardless of size or mission, engage in some form of internal quality assurance, for example departmental reviews and programme reviews. Fourie (2000) researched quality assurance in institutions of higher education in South Africa. Four particular areas were singled out, namely teaching staff, students, learning programmes and information technology. The teaching staff and learning programmes were considered to be the most important of these four areas.

With reference to Fourie's findings, the aim of this author's research was to assess the quality of a specific programme, namely a course work master's degree in environmental education offered at the University of South Africa. A further motivation for this research was that the development of assessment and evaluation criteria and procedures could be used to assess and evaluate other similar programmes at the University. In this way the research for the present article and its practical application will contribute to the improvement of the University's educational programmes, in particular the curricula for the various modules, the tuition (i.e. the teaching strategies), the support given to students to achieve specific outcomes, and the techniques used to assess students' work.

Research design, methodology and output

The research was predominantly qualitative in nature. An initial literature study was conducted on quality enhancement and quality assurance approaches, models, and strategies in higher education. Special attention was given to the so-called SWOT self-analysis strategy that focuses on the strengths and weaknesses, opportunities and threats of a programme or any other phenomenon to be evaluated. The SWOT analysis procedure was followed by making use of peer assessment (the team of lecturers offering the programme), student assessment, external and internal assessment, and evaluation. Local, national and international post-graduate programmes in environmental education and environmental studies were scrutinised and compared. M.Ed. (EE) students were visited in their workplaces to observe their application of the knowledge and skills they had acquired through their studies. Peer evaluation was conducted through a workshop held in an academic department to give the tuition team the opportunity to identify valid evaluation criteria. A student evaluation questionnaire was developed to identify the strength and weaknesses of the programme, as well as the opportunities and threats facing it in practice. A final report was compiled that includes recommendations for the improvement of the programme and quality enhancement strategies that could be followed in the department concerned, and also in the Faculty.

Quality assurance in higher education

The literature reports on many attempts to define quality. In business and industry, quality has been an important issue for many years. One of the definitions used in managerial literature is that "quality is the extent to which the product meets the demands"; another is "customer satisfaction". Vroeijenstijn (2001), however, comments that in higher education there is no clear indication whether the "customer" is the institution, the student, the future employer, or society. In the case of a product, or even a service, everybody who buys it has more or less the same expectations. Unlike the industrial case where the product should meet the same requirements under all

circumstances all over the world, the quality of education always seems to be at least context bound. A number of "actors" are involved, for example students, lecturers, the administration, the government, professional bodies, employers, and society in general. This complicates the issue. All these actors have their own, sometimes conflicting, interpretations of quality, with the result that it becomes more difficult to arrive at a standard definition. As can be expected, therefore, the measurement of quality tends to be another problem area in the quality enhancement and assurance process.

In Strydom *et al.* (1997), Lategan stresses that the concept of quality does not necessarily lend itself to a straightforward interpretation, especially within the South African context, and that an open and flexible approach should be followed when dealing with quality in higher education. The authors argue that in South Africa there should rather be reference to notions of quality instead of a definition. These notions are: quality exemplified in an exceptionally high standard; quality as transformation; quality in terms of fitness for purpose; quality as quest for zero defect; quality as value for money; and quality as a product evaluated against customer satisfaction (Fourie, 2000; Harvey and Green, 1993; Strydom *et al.*, 1997). Standards, on the other hand, specifically refer to the levels of achievement that are expected of and attained by students in their studies. However, in the end, one has to agree on what quality education entails and what criteria will be used to evaluate an educational programme. Perry's "definition" of quality in education was adopted for the purpose of this research (Harvey and Green, 1993):

> It cannot be said too often that the real quality of education must be measured in terms of what the students know, understand and can do at the end of their education experience. These are unquestionably the criteria used by employers and society at large.

In line with most authorities on quality assurance, Perry seems to have succeeded in catering for all the major elements of quality assurance in education, namely the learner, customer satisfaction, and society at large where the learner has to apply his/her knowledge and skills. What needs to be added – which has unfortunately become a problem in South Africa and abroad – is the financial aspect. As John Biggs (2001) put it: "a 'quality' institution ... is one that satisfies the demands of public accountability. It produces, for example, more graduates for fewer public dollars ..." (see also Harvey and Green, 1993). The question is whether this is viable in South Africa as a developing country with its diversity of peoples and high illiteracy ratio. Furthermore, it has to be noted that there should be no direct link between quality assessment and funding (Elton and Bitzer, 2001). Thus, quality assessment should be maintained, even when funding is not available.

Quality assurance in higher education, and especially quality in teaching and learning, also needs practitioners who base their approach on a sound and well-founded theory. In other words, quality teaching and learning can only materialise if the individual reflective practitioner (the lecturer) succeeds in linking practice to well-founded theory (Schön, 1983). What has not been considered in the quality assurance debate is the emergence of the concept of education for sustainability.

Sustainability has become a critical factor to be considered in the pursuit of quality assurance in higher education. Wals and Jickling (2002) discuss the advantages that education for sustainability could have for teaching and learning in higher education in an article titled "Sustainability in higher education: from doublethink and newspeak to

critical thinking and meaningful learning". Today, sustainability is becoming an important term in educational and environmental discourse, and possibly a factor that could determine the quality of programmes in higher education. The main reason for the prominence of this concept is that in the greater scheme of things the viability of the earth itself as a natural habitat that sustains human and other life forms is under attack Species are becoming extinct, and whole ecosystems and the survival of human beings are at risk. The question arises: Can one nowadays make an appeal for quality in higher education if programmes are not developed with sustainability in mind? That is, if one agrees that the role of higher education is to create a society with sustainability built into its foundation. Wals and Jickling maintain that a focus on sustainability could "provide an opportunity for accessing . . . new ways of knowing (a paradigmatic challenge)" because the concept of sustainability is open to many interpretations, and indeed, it encompasses ethical, moral, aesthetic, spiritual (religious), as well as social, cultural, economic, technical and legal aspects of life. On the other hand, the objective of education for sustainability is to deliver students in a transparent society who critically participate and are actively involved in problem solving and decision making. This relates to the quality assurance criterion that students in higher education should at least be engaged in socio-scientific discourse and should be exposed to a diversity of ideas.

According to Wals and Jickling, the multi-faceted concept of sustainability also offers the opportunity for lecturers to experience new "pedagogical worlds" (experiential, epistemic and systemic) and for students to gain access to "new worlds of learning and researching". It represents the notion of integration and an interdisciplinary approach to teaching and learning. These considerations have become major determinants for quality assurance in higher education in these post-modern times, especially where teaching and learning are concerned. It is therefore justifiable to claim that environmental education programmes at higher education institutions, with the emphasis on sustainable living, are bound to contribute to good quality teaching and learning, and that the concept of "sustainability" has to be integrated into most learning programmes in higher education.

Programme evaluation in higher education
According to Radcliff (Strydom and Lategan, 1997) educational programmes of quality should have criteria, standards, methods and measures for determining the level of knowledge, skills, and abilities required of lecturers and students. Programmes should also include provision for students to develop and demonstrate competences in the areas of creativity, initiative and "industry". Jacobs (Strydom and Lategan, 1997) argues that rather than concentrating on quality assurance mechanisms, "the main aim in programme level quality assurance is the product quality and the inputs and processes involved therewith". Evaluation functions should be described in accurate detail and performed by peers from the relevant institution, including the "employer", members of staff from education and other faculties, and senior students. Furthermore, internal and external examiners should moderate examination papers and evaluate tuition practices. In valuing teaching for quality assurance purposes, HERDSA (Higher Education Research and Development Society of Australia) proposed the notion, amongst others, that an institution should have clearly defined paths in place for the advancement of staff whose main contribution to the institution is in the area of

teaching (HERDSA, University of New South Wales). In this regard one can pose the question whether staff receive adequate recognition for contributions to teaching when they are considered for promotion, or whether the publication of research articles are always considered more important. The fact of the matter is that professional staff and staff development play a very important role in the QA process in higher education.

Self-evaluation as basic component of quality assurance procedures

Self-evaluation should form the basis of, and should be integral to, quality assurance and its management in an institution, a department or a programme (Strydom and Lategan, 1997; UNISA, 2001; Vroeijenstijn, 2001). One of the most effective tools in the field of quality assurance is critical self-assessment, also called self-analysis or SWOT analysis where the following questions are relevant:
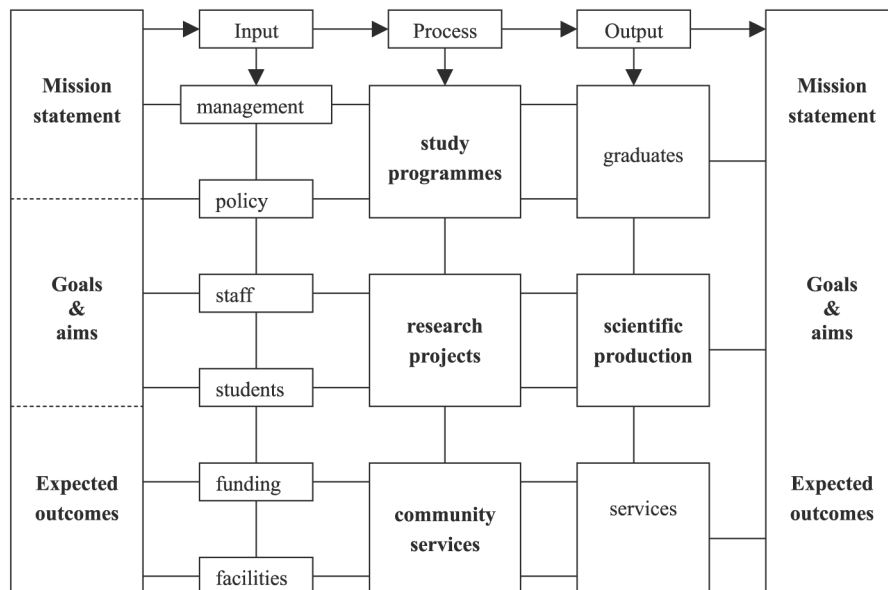
- Why are we doing what we are doing (e.g. the rationale behind the qualification)?
- Do we really achieve what we want to achieve (outcomes of the different modules if a learning programme is reviewed)?
- Do we really do what we promised to do (e.g. the purpose of the programme)?

Answers to these questions are supposed to show strengths and weaknesses in the content, delivery and assessment areas of the programme or activity. The review process and self-assessment procedure also need to be evaluated during the activity and afterwards. In connection with this procedure, Strydom *et al.* (1997) recommend the following types of assessment citeria:

- the appropriateness in a specific area of the mission, goals and objectives of the institution and/or the programme, preferably within the context of the specific institution (see Figure 1);
- the suitability of standards, viz. the criteria and the performance indicators set;
- the effectiveness of procedures for encouraging good quality (e.g. the "fitness for purpose" notion and how it is addressed in programmes);
- the effective worth of evaluation procedures; and
- the efficacy of the whole improvement practice – taking into account that the self-evaluation process also has to be evaluated.

For instance, in reviewing a course work Master's programme or any other educational programme, the following questions may be relevant:

- Do the existing self-evaluation mechanisms and procedures really work?
- How likely are these mechanisms and procedures to achieve what is intended?
- Do they address the main quality issues in the specific area (quality content, delivery and assessment of the programme)?
- How well do these self-evaluation mechanisms and procedures fit in with other management and administrative activities for the specific area in the academic department?
- Do the mechanisms and procedures for self-evaluation have enough support from the leadership and staff working on the programme (the team of lecturers)?

Source: Vroeijenstijn (2001)

Figure 1.
Quality model for higher
education

- How did the students experience their teaching and learning (Strydom and
  Lategan, 1997)?

The critical self-assessment questions of both Vroeijenstijn, and Strydom and Lategan,
have much in common. Strydom and Lategan, however, focus on more detail and
include important issues such as cooperation between leadership and management of
the department, as well as the input of students who are on the receiving end of the
activity. In the case of the Masters degree in Environmental Education programme it
was found that the assistance of the head of the department and results from student
questionnaires were indeed meaningful.

Approaches and factors influencing the evaluation process
The design of a programme is a very complex undertaking that involves many diverse
elements and approaches (Gore *et al.*, 2000). Gore *et al.* studied the works of Schon
(1987) and others, and provided two self-assessment case studies from a university in
the United Kingdom (UK) where two contrasting approaches to the monitoring of
academic provision were adopted, namely the technical-rational approach and the
professional-artistry approach. The technical-rational approach relies on rules, laws,
prescriptions, schedules and routines. This model has a behaviourist foundation and
consists of what is visible and can be monitored and measured. The
professional-artistry paradigm, on the other hand, proceeds from the view that
quality and quality indicators are temporary, dynamic, problematic and contextualised
(Gore *et al.*, 2000). The emphasis is on data rather than evidence, and on the collection
of a range of interpretations of a range of perspectives (Fish in Gore *et al.*, 2000).
Additional advantages of the technical-rational approach are, amongst others, that it is

transparent and can be universally understood, thus ensuring standardisation and that staff pay attention to quality assurance. After reflecting on these two scenarios, Fish and Gore conclude that the use of diverse approaches can have useful effects.

It can be expected, however, that if only the technical-rational approach is adopted in an education environment, it could fall short of delivering creditable results (perfection) followed the fact that education is a system based on human interaction, and this approach will not be able to provide for human infallibility and eccentricity. The professional-artistry approach, on the other hand, develops a culture of continuous improvement; individuals are in control of their own work and it encourages sharing of experiences, joint problem solving and good communication between members of staff and students. Utilisation of both these approaches in measuring the educational quality of programmes in a department through self-assessment could be a useful exercise, especially when a programme in environmental education with its interdisciplinary and value-laden nature is being evaluated.

Existing programme reviewing models
A number of different quality assurance models exist. An evaluation model developed by the Higher Education Quality Council (HEQC) and the Quality Assurance Agency (QAA) for Higher Education in the UK (1996) can be utilised for programme reviewing. This model is also suitable for a distance-learning environment. Specific adaptations to this model would be necessary within the South African context (general and environmental). The following categories need to be considered for inclusion in this model (see also Figures 1 and 2):

- vision and mission of the institution, the department and the programme;
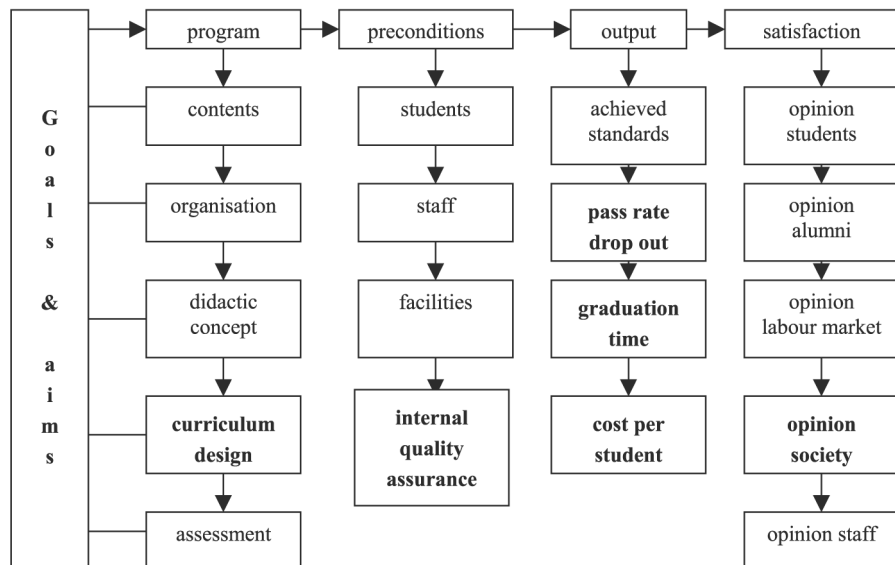- programme design, approval and review;

Figure 2.
Quality model for educational activities/programmes

Source: Vroeijenstijn (2001)

- programme delivery and management (assessment and evaluation procedures included);
- student development and support;
- student communication and representation; and
- student assessment.

Almost all these considerations are also accommodated in a general model developed by Vroeijenstijn (2001). This model could be very useful if it is adapted to the specific nature of the institution and the field of study. Figure 1 shows where programme evaluation (study programme) fits into the quality framework of the institution as a whole, while Figure 2 deals with programme evaluation *per se*.

Mouton and Dowling (2001) proposed a conceptual framework for programme evaluation that shows more detail within the South African situation (see Figure 3) and that can be applied successfully to programme reviewing in distance learning institutions. Mouton, for example, lists the South African stakeholders (see viii in Figure 3) and includes the South African Qualifications Authority that is responsible for the accreditation of qualifications.
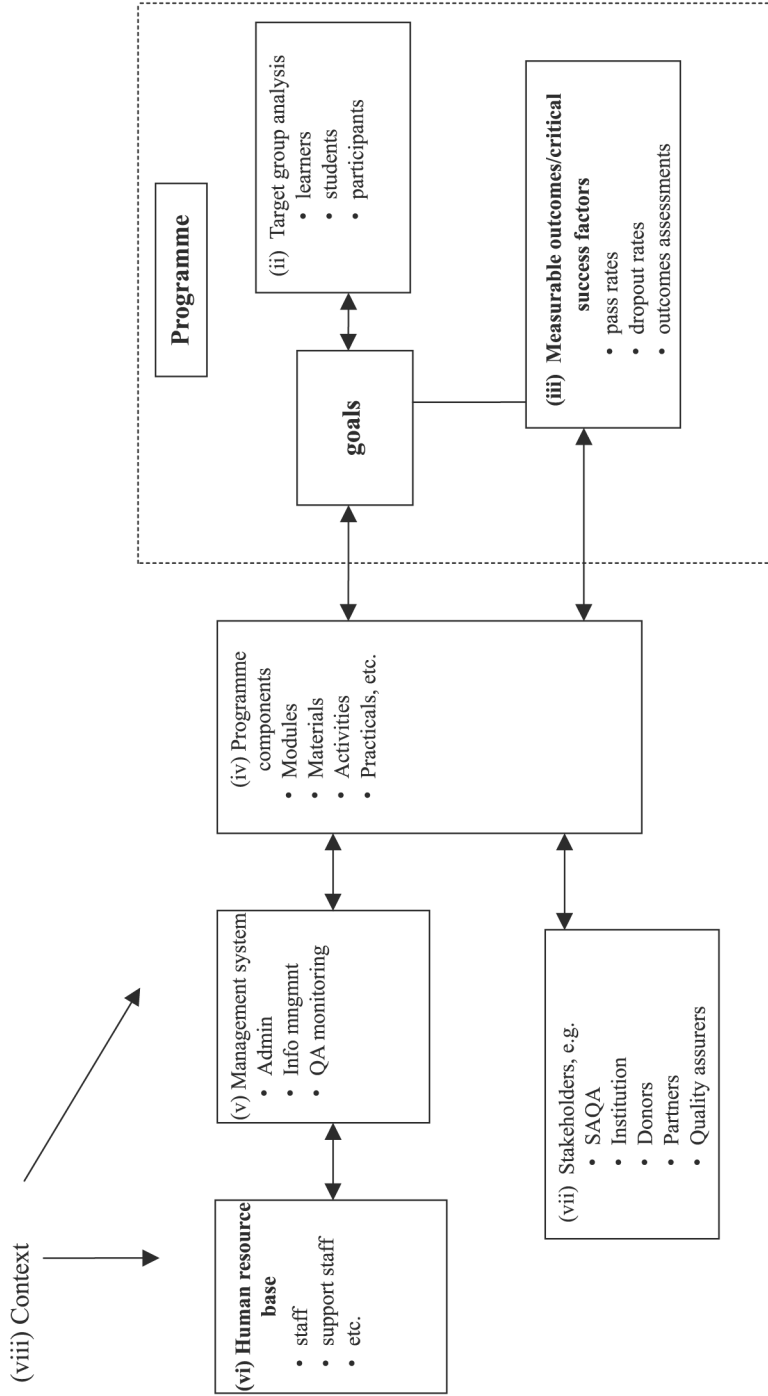
Guiding principles for programme reviewing

Barak and Breier (1990) recommend principles for programme reviewing that should be kept in mind when implementing the process. These principles are:

- fairness, for lack of which the effectiveness of the review process can be hampered;
- comprehensiveness because the exclusive focus on one or only a few aspects of a programme could have a negative impact on other programmes;
- timeliness, which means that programmes have to be reviewed regularly. The advantages include maintenance of the review structure, opportunities to learn from the previous cycle, and frequent assessment of progress;
- good communication, which means that participants have to be kept informed so that a positive attitude can be maintained;
- objectivity, to be built in as far as humanly possible. Webster in Barak and Breier (1990) defines it as "emphasising the nature of reality as it is apart from personal reflections or feelings";
- credibility, which means that the review should be regarded as fair, objective and reasonable;
- utility because lecturers and students like to know that their efforts would be worthwhile.

Successful programme reviewing would be possible in most educational settings if these principles are upheld, provided that due allowance is made for the difference between a distance learning and a residential environment where the former is subjected to review.

Distance learning is increasingly being implemented in many institutions worldwide as an economical way of expanding teaching and learning opportunities for students by making use of effective new technologies. Whereas some information

Figure 3.
Conceptual framework for
programme evaluation

may be conveyed verbally to learners in an "on campus" learning environment, all study material must be available in printed or electronic format in a distance learning environment where it forms the basis of teaching and learning. Another major difference between distance learning and "on campus" learning is, of course, the delivery of the material to the student's location.

Distance learning programmes have some basic features (dimensions) in common which distinguish them from contact-based modes of learning. Such features include:

- material-based learning (study guides and tutorial letters);
- programme components delivered by visiting lecturers;
- locally supported learning (weekend workshops, seminars etc.); and
- teaching provided by tutors (videocassettes, telephone, fax, e-mail, Internet, video and/or computer-based conferencing).

Furthermore, distance learning relies on a sound and effective logistic and administrative infrastructure to ensure that all participants are coordinated and engaged with programmes as designed by the provider. There is also a distinct division of labour both in the teaching and administration sections. The dimensions have to be contextualised or made acceptable internationally since a distance-learning institution often accommodates students from countries worldwide. The distance-learning mode also affects the programme evaluation process. For example, face-to-face interviews are usually not feasible. In South Africa, communication is mainly via surface mail since the majority of students do not have access to the Internet.

The diverse nature of learners (a variety of traditions and languages) has to be taken into consideration, especially in the delivery phase. For a programme of quality dealing with the environment, for example, the variety of environments (natural, built and social – almost a world-in-one) largely determines the design as well as the delivery of the programmes. Since 1997, lecturers responsible for the development of programmes in environmental education, for example, have been very much aware of this reality and are trying to localise and contextualise the content and especially the focus of assignments. Since both environmental and outcomes-based education (OBE)[1] use basically the same teaching approaches and methodology, the coursework Master's programme was established in an OBE format from the outset (1997-1998). Examples of approaches, and teaching and learning methods are the integrative and interdisciplinary approaches and the emphasis on action learning (Brockbank and McGill, 1999), self-directed learning (Jarvis *et al.*, 1998) and group work.

Concluding remarks

The following points can be highlighted with respect to programme reviewing with a view to quality assurance and enhancement in higher education:

- Many of the existing definitions of quality assurance in higher education are based on the notion that quality is rated according to "fitness for purpose". If we are serious about saving the earth, the purpose of all education should contain elements of sustainability and caring for the planet. With sustainability in mind the fitness for purpose notion in political science programmes, for instance, could

focus on systems to prevent wars. The social sciences programmes could include guidelines for full employment or self-employment that generate decent, sustainable livelihoods.

- More than one approach can be adopted in reviewing programmes in higher education, but it seems that preference ought to be given to the professional-artistry class of approaches, which are specifically suitable for all educational settings, and more particularly for the effective evaluation of environmental education programmes or elements of sustainability in any other programme where the relationship between human beings and the environment is concerned.

- Self-assessment is a valuable tool to ensure and enhance quality in programmes. Students in higher education, for example, should be encouraged to do continuous self-assessment of their attitudes and behaviour towards the environment.

- Student input ought to be considered as a very important aspect of programme reviewing. Students themselves are the best authorities on their own local environments and are therefore the most obvious people to participate in successful programme reviewing.

- Staff play a decisive role in quality assurance and should receive adequate recognition for their contributions to efficient teaching, and not only to research output as is the case at many institutions.

- In view of the current environmental degradation (state of the earth), the concept of sustainability should be integrated as far as possible into all learning programmes in higher education. Environmental awareness, knowledge and understanding of ecological processes, and skills to care for the environment could enhance sustainable living on planet earth.

These guidelines are by far not the alpha and omega of the very difficult process of programme reviewing. It seems that there is no "true model" for all institutions. Institutions and the specific field of study where quality assurance is going to take place have to adapt the guidelines to the very nature of the institution and the various fields of study. What may be new and has to be emphasised when programmes are currently reviewed, is the concept sustainability and the integration of education for sustainability into curricula of learning programmes. Quality assurance, in the end, requires systematic, structured and continuous attention to quality in terms of quality maintenance and quality enhancement. All internal arrangements and procedures should reflect good quality assurance practices.

Note

1. The education system adopted in South Africa since 1997.

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