STANDARDS AND QUALITY

IN

HIGHER EDUCATION

THEODORE CLIVE SHIPPEY

1994

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A

TABLE OF CONTENTS

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I would also like to acknowledge with gratitude the willingness of the Council of the Cape Technikon to grant me leave and financial assistance in order to visit England and the United States during the second half of 1992. I would further like to acknowledge the financial support provided by the Institute for Research Development of the Human Sciences Research Council (HSRC) towards this research project which led to a Report being produced in 1994 and to an extension of that Report shortly afterwards. In addition to the Human Science Research Council Data Base a study was made of possible similar investigations at other Technikons in order to avoid duplication.

Although this study really only provides a foundation and a theoretical basis for further research in the field of "quality", "standards", "Total Quality Management" (TQM), and other aspects, it is primarily intended to stimulate thought in this direction and stir the thoughts of those who make significant decisions at the higher education level, locally, regionally and nationally.

If I succeed in generating interest in these topics and in provoking further analysis of related ideas, then I will have achieved my immediate objective. I would also like to acknowledge, with thanks, the help and encouragement of Dr Chris la Grange, my supervisor, who was constantly available and always ready to assist. A special word of thanks must go to Miss Hanlie Brand, my Personal Assistant, who put so much time and effort into the typing and preparation of this thesis - her contribution was all-important.

GLOSSARY OF TERMS AND ABBREVIATIONS

1. TERMS USED IN THIS TEXT

NB   It should be noted that key terms such as "standards"; "quality"; "norms'; "criteria"; "excellence"; "accreditation"; "validation"; "eclecticism"; "total quality management", are fully defined in the text and have therefore not been included in this glossary.

Benchmarking - identification of an external point of reference; a standard by which an activity can be measured or judged

Egalitarianism -   equality

Faculty - teaching/academic staff at a technikon, college or university

Grade Inflation -   grades have risen without a correlative rise in student achievement

Guru -   a spiritual teacher; a venerable person; used in this text as an expert or authority

Higher Education -   denotes a tertiary/post-secondary/advanced level of education - used interchangeably with these terms - more commonly used in Europe, the UK and the USA

Juvenile Population -   denotes a population in which larger numbers of people than usual (more than at least 25 percent) are below the age of 20

Open Door Enrolment -   denotes an entry system to higher education which demands little else other than the completion of high school and in some cases even this requirement is waived on an age basis

or on experience or some other basis

Paradigm –   an example or model of how things should be done

Pecking Order –   a merit list or hierarchy of institutions of higher education established by public opinion polls or questionnaires or merely created by writers and experts in the field

Performance Indicators   –   statistics, ratios and other quantitative information which indicate the way in which a programme of study or a higher education institution is operating

Polytechnic –   means literally "many arts"; used to denote those higher education institutions in the UK which up until September 1992 played an important role in the binary system; after that date they became universities

Value-added –   denotes that additional knowledge/understanding which was added to the student's initial knowledge/understanding during his period at a higher education institution

2.   ABBREVIATIONS

AAU	–	(UK) Academic Audit Unit
AGB	–	Algehele Gehaltebeheer
ANC	–	African National Congress
ASEESA	–	Association for the Study of Evaluation in Education in South Africa
ASP	–	Academic Support Programme
AUT	–	Universities and Technikons Advisory Council
AVCC	–	Australian Vice-Chancellors' Committee
BA	–	Bachelor or Arts
B Comm	–	Bachelor of Commerce

B Sc	-	Bachelor of Science
B Tech	-	Bachelor of Technology
BTEC	-	(UK) Business and Technology Education Council
CAT	-	(UK) Credit Accumulation and Transfer
CEO	-	Chief Executive Officer
CHES	-	(UK) Centre for Higher Education Studies
CIHE	-	(UK) Council for Industry and Higher Education
CNAA	-	(UK) Council for National Academic Awards
COSATU	-	Congress of South African Trade Unions
CTP	-	Committee of Technikon Principals
CUNY	-	. (USA) City University of New York
CUP	-	Committee of University Principals
CVCP	-	(UK) Committee of Vice-Chancellors and Principals
DEC	-	Department of Education and Culture: House of Assembly
DET	-	Department of Education and Training
DNE	-	Department of National Education
D Tech	-	Doctor of Technology
ECCTIS	-	(UK) Educational Counselling and Credit Transfer Information Service
EASA	-	Education Association of South Africa
eg	-	For example
ERASMUS	-	(European) European Action Scheme for Mobility of University Students
ERS	-	Education Renewal Strategy
FRD	-	Foundation for Research Development
FVTC	-	(USA) Fox Valley Technical College
GCSE	-	(UK) General Certificate of Secondary Education
GPA	-	(USA) Grade Point Average
HBU	-	Historically Black Universities
HE	-	Higher Education
HEFC	-	(UK) Higher Education Funding Council
HEQC	-	(UK) Higher Education Quality Council
HMI	-	Her Majesty's Inspector

HMSO	-	(UK) Her Majesty's Stationery Office
HR	-	Human Resources
HSRC	-	Human Sciences Research Council
Inc.	-	Incorporated
ISE	-	Institutional Self-Evaluation
INQAAHE	-	(Worldwide) International Network of Quality Assurance Agencies in Higher Education
JMB	-	Joint Matriculation Board
MIT	-	(USA) Massachusetts Institute of Technology
M Sc	-	Master of Science
M Tech	-	Master of Technology
NASOP	-	Nasionale Opvoeding
NATED	-	National Education
NATFHE	-	(UK) National Association of Teachers in Further and Higher Education
NCHE	-	National Commission on Higher Education
NCHEMS	-	(USA) National Centre for Higher Education Management Systems
NCQHE	-	(UK) National Council for Quality in Higher Education
NCVQ	-	(UK) National Council for Vocational Qualifications
NECC	-	National Education Co-ordinating Committee
NEPI	-	National Education Policy Investigation
NHCE	-	National Commission on Higher Education
NHD	-	National Higher Diploma
NIST	-	(USA) National Institute of Standards and Technology
NMSU	-	(USA) Northeast Missouri State University
No.	-	Number
OECD	-	(European) Organisation for Economic Co-operation and Development
OFSTED	-	(UK) Office for Standards in Education
OSU	-	(USA) Oregon State University
OVSA	-	Opvoedkunde Vereniging van Suid-Afrika

OXBRIDGE   –   (UK) Universities of Oxford and Cambridge

p.   –   page (pp. - pages)
para.   –   paragraph
PCFC   –   (UK) Polytechnics and Colleges Funding Council
Ph D   –   Doctor of Philosophy
PPE   –   (UK) Oxford University - Philosophy, Politics and
               Economics - combined degree
PRISEC   –   Private Sector Education Committee
PSBs   –   (UK) Programme Standards Bodies
PSE   –   Post-Secondary Education

QAC   –   (UK) Quality Assessment Committee (Part of HEQC)
QC   –   Quality Circle
QFD   –   Quality Function Deployment
QIP   –   (USA) Quality Improvement Process (used mainly by
               Samford University)
qc/qa   –   Quality control/Quality assurance
QMU   –   Quality Management Unit

RP   –   Republic of South Africa Publication
RSA   –   Republic of South Africa

SAPSE   –   South African Post-Secondary Education
               Information System
SAT   –   (USA) Scholastic Aptitude Test
SCED   –   (UK) Standing Conference on Educational
               Development
SCOP   –   (UK) Standing Conference of Principals
SCOTVEC   –   (UK) Scottish Vocational Education Council
SERTEC   –   Certification Council for Technikon Education
SQM   –   Strategic Quality Management

THES   –   (UK) Times Higher Education Supplement
TQL   –   (USA) Total Quality Leadership
TQM   –   Total Quality Management (AGB - Algehele
               Gehaltebeheer in Afrikaans)

UAC   –   University Accrediting Committee
UCT   –   University of Cape Town

UFC	—	(UK) Universities Funding Council
UGC	—	(UK) University Grant Committee
UK	—	United Kingdom (VK in Afrikaans)
UOFS	—	University of the Orange Free State
USA or US	—	United States of America (VSA in Afrikaans)
Viz.	—	*videlicet* (namely)
VOL.	—	Volume
VSNU	—	(European) Vereniging van Samewerkende Nederlandse Universiteiten

SUMMARY

The main hypothesis underlying this study has been formulated on the basis of an identified need in the Republic of South Africa (RSA) for a means of ensuring and preserving acceptable standards (by international norms) and quality in higher education. It has been assumed that this need may partially be met by the adaptation of selected overseas systems of quality control and systems of evaluation and accreditation of standards.

The emphasis throughout is on intelligent, selective adaptation of successful attempts at controlling and managing standards and quality in higher education.

One of the primary reasons for the establishment of a model for the preservation and enhancement of standards in higher education in the RSA, becomes clear when one identifies the emergence of a growing number of aspirant students. Many of those students attended schools where neither the tuition nor the facilities provided a suitable foundation for further studies at an advanced level.

A further need for such a model is related to great pressures to lower standards which are being exerted by political and social groups and the prevailing views amongst many educators that a decrease in standards is inevitable.

The hypotheses that will be tested include the assumption that a lowering of standards will seriously affect industry, commerce, and the whole social fabric and ultimately the credibility of South Africa's higher educational institutions and the acceptability of their graduates.

This study is therefore aimed primarily at focusing attention on the need for an awareness amongst the higher educational community, and other communities, of the implications of vastly increased enrolments of under-prepared students.

The analysis of, for example, higher education quality control measures in the United Kingdom (UK) and the United States (USA) serves to provide an international norm and also provides examples of well-tried and established methods of ensuring standards.

The central purpose of this study is to seek solutions by examining and defining "standards" and "quality" in higher education and by reviewing and evaluating measures taken in order to maintain such standards. Solutions which prove worthwhile can then be incorporated into a model for the RSA.

The universality of certain educational principles, which are applicable to a study of standards and quality, emerges strongly from this study. What also emerges are the undeniable virtues of careful, logical studies of other educational systems in order that one may be in a better position to assess and improve one's own system.

The pervasive and significant influence of the business

community's system of Total Quality Management (TQM) and its applicability to higher education manifests itself strongly throughout this study. The principles of TQM and their implementation in the commercial and industrial sectors, present a challenge to those who believe that such principles can be adapted and utilised by the higher education fraternity. The use of such TQM principles in a model for the preservation of standards and quality in higher education in the RSA constitutes a vital part of this study.

OPSOMMING

Die hoofhipotese wat hierdie studie ten grondslag lê, is gefundeer in 'n geïntigreerde behoefte in die Republiek van Suid-Afrika (RSA) aan 'n manier om aanvaarbare standaarde (volgens internasionale norme) en gehalte in tersiêre onderwys te verseker en te handhaaf. Daar word van die veronderstelling uitgegaan dat die aanpassing van geselekteerde oorsese stelsels vir gehaltebeheer asook vir die evaluering en akkreditering van standaarde deels in hierdie behoefte kan voorsien.

Die klem val deurgaans op die intelligente, selektiewe aanpassing van geslaagde pogings om standaarde en gehalte in tersiêre onderwys te beheer en te bestuur.

Een van die vernaamste redes vir die bepaling van 'n model vir die behoud en verbetering van standaarde in tersiêre onderwys in die RSA raak duidelik wanneer 'n mens die opkoms van 'n toenemende aantal aspirantstudente identifiseer. Baie van hierdie studente was op skool waar nóg die onderrig nóg die fasiliteite wat verskaf is 'n geskikte grondslag vir verdere studie op gevorderde vlak gelê het.

'n Verdere behoefte aan so 'n model hou, enersyds, met die groot druk om die verlaging van standaarde wat politieke en maatskaplike groepe uitoefen en, andersyds, met die heersende sienswyse onder baie opvoeders dat 'n verlaging in standaarde onvermydelik is, verband.

Die hipotesisse wat getoets word, berus op die aanname dat 'n verlaging van standaarde die bedryf en die hele maatskaplike bestel en, uiteindelik, die geloofwaardigheid van Suid-Afrika se inrigtings vir tersiêre onderwys en die aanvaarbaarheid van hulle gegradueerdes ernstig sal raak.

Hierdie studie spits hom dus vernaamlik daarop toe om by diegene gemoeid met tersiêre onderwys en by ander gemeenskappe 'n bewustheid tuis te bring van die implikasies wat skerp stygende inskrywings van gebrekkig voorbereide studente inhou.

Die ontleding van byvoorbeeld gehaltebeheermaatreëls vir tersiêre onderwys in die Verenigde Koninkryk (VK) en die Verenigde State van Amerika (VSA) dien om 'n internasionale norm te verskaf en lewer ook voorbeelde op van metodes vir die versekering van standaarde wat deeglik beproef is en reeds hulle beslag gekry het.

Die sentrale doel van hierdie studie is om met die ondersoek na en omskrywing van "standaarde" en "gehalte" in die tersiêre onderwys en met die verkenning en evaluering van maatreëls wat getref moet word ten einde dié standaarde te handhaaf, na oplossings te soek. Oplossings wat die moeite werd blyk, kan daarna in 'n model vir die RSA opgeneem word.

Dat bepaalde opvoedkundige beginsels, wat op 'n studie van standaarde en gehalte van toepassing is, universeel is, blyk terdeë uit hierdie studie, en wat eweneens na vore tree, is die onmiskenbare deug van die sorgvuldige, logiese bestudering van

ander opvoedkundige stelsels waardeur iemand beter in staat
gestel kan word om sy eie stelsel te evalueer en verbeter.

Die deurdringende en betekenisvolle inlvoed van die sakewêreld
se stelsel van Algehele Gehaltebestuur (AGB) en die toepassing
daarvan op tersiêre onderwys tree in hierdie hele studie sterk
na vore. Die beginsels van AGB en die toepassing daarvan in die
bedryf bied 'n uitdaging aan diegene wat meen dat die geledere
van die tersiêre onderwys dié beginsels kan aanpas en benut. Die
gebruik van sulke AGB-beginsels in 'n model om die behoud van
standaarde en gehalte in die tersiêre onderwys in die RSA maak
'n allerbelangrike deel van hierdie studie uit.

CHAPTER ONE

BROAD FRAMEWORK OF RELEVANT THEORY AND RESEARCH

1. PREFACE

The problems of our inner cities, the environment, racism, unequal opportunities, unemployment, the family and young people - even of political and tribal violence - are, in part, educational. It would be absurd to suggest that our educational services should take sole responsibility for such problems. But education is one of the main means whereby a society shapes its future. Its responsibility is commensurate with its importance. Higher education is a small part of the entire educational service, but it is a key component, in some measure controlling the rest of the system through the definition of excellence, the establishment of orthodoxies of knowledge, the training of teachers, professionals, technologists and technicians.

Wealth is no longer going to be found in the ground and on the earth of Southern Africa. It will be found in the hearts and minds of the people of our nation - or it will be found nowhere.

The nature of work is changing. It is becoming increasingly brain-intensive, value-laden and unpredictable. Skilled brain power is replacing disciplined muscle-power. Unskilled and low-skilled work is rapidly diminishing. In its place employers call for more people with professional, technical and managerial skills. Competitive economies in future will depend on the success of the education system in producing a high average level of education and training, rather than just a small leadership elite. This study unequivocally supports the idea of providing advanced education for all who may genuinely benefit from it, and not merely by expanding the existing elite.

The only thing certain about tomorrow is that it will be different. In the future, few people will be able to rely on their initial education and training to provide them with

specific skills to last a lifetime. All must be ready to adapt, or learn new skills, to meet the changing and unpredictable demands of work. The pace of technological, social and economic change has increased. The outdated idea of a "sufficient" initial education must be replaced by the principle of lifelong learning.

Rapid change generates new needs. New industries look to higher education for help in the provision of new skills, specialised advanced training, consultancy and research support. But the demand for more, and different, and better, and continuing education comes not only from the world of work. Only a well-educated society can cope with the information revolution that has taken place through the development of new media, mass communication and information technology.

A full-fledged democracy, and that is what we hope to become, requires a highly educated electorate in order to function effectively. Education civilises, and individuals who now live longer and have more leisure time, turn increasingly to activities which are, or are capable of being, skill-intensive and life-enhancing: gardening, home-improvement, travel, the arts and crafts, learning of all kinds.

The old division of existence into work and play is being replaced by the type of life where learning, labour and leisure each have equal shares. More and more people are seeking to enhance their learning, develop new skills, and study other subjects, through further and higher education. They have discovered that lifelong learning improves the quality of life. It is in everyone's interest that this trend should be encouraged.

There is today a widely-recognised and almost universal aspiration for a home, a car and other basic material possessions, and for security and mobility. While such aspirations inevitably exact a price, in a democracy they cannot easily be denied - nor should they be. Desire for advanced

education is also growing in all parts of the world, including the Republic of South Africa (RSA). We must foster that aspiration for higher education in the widest sense. The model of the "learned" society, which excludes all but the elite, must be replaced by the idea of a "learning" society, in which all are members and all may aspire to fulfil their potential and achieve excellence in their own time and at their own pace. A system of higher education which offers wider participation will make the most effective contribution to developing higher aspirations, and precipitate the best response to the national need.

The case for the expansion of higher education, which has been alluded to here, has received widespread support. Those consulted believe it to be sound. Many have signalled their commitment to it by accepting that its consequences will require both increased government funding, necessitating higher taxes, and real changes to higher education in order to achieve greater cost-effectiveness. They are prepared to pay the cost.

Moreover, they want neither excellence at the expense of equity, nor equity at the expense of excellence. The RSA needs both and the need is serious and urgent. Without such a commitment to excellence and equity as a core of the RSA's agenda for higher education until the year 2000, the RSA cannot build the society which it will need in the new century. Failure to achieve these goals in an interdependent, highly competitive, international environment will diminish its standard of living, enfeeble its economy, and impoverish the lives of all South Africans.

In the light of these thoughts and ideas it seems logical to examine in some detail the significance and meaning of the standards/norms/quality which will determine the entry and exit levels of achievement in higher education during the crucial years of the 1990s.

The rationale for this study is the analysis and definition of standards and quality improvement in order to help determine the measures and means of preserving our links with internationally

acknowledged levels of achievement and scholarliness at a higher education level. The RSA can ill-afford to accept, during the political and social turbulence which is taking place, a standard of academic achievement in higher education which differs somewhat from that of the major economic powers worldwide. The RSA is emerging as a trading partner, a research partner, a world player in a variety of activities, and must therefore be seen as a participant which can compete at the highest levels of excellence and competence. Participation at this level in intellectual and vocational activities is also vitally important. Standards in higher education must be synonymous with world standards otherwise the RSA will be relegated to a position of obscurity within the Third World domain.

2. LITERATURE OVERVIEW

The main sources of information within the context of standards and quality in higher education are clearly indicated throughout this study in the text, in the references, and in the appendixes.

The publications used consist of four main categories, namely, journals and occasional papers, papers and proceedings from national and international conferences/seminars/conventions, texts from authors of note, and research and library texts such as dictionaries, encyclopedias and other reference books.

In the United States (USA) the most valuable texts on quality, and more particularly total quality management (TQM) in education have been published by GOAL/QPC in the Boston area. In the United Kingdom (UK) the publications from the Committee of Vice-Chancellors and Principals (CVCP), the work of the Higher Education Quality Council (HEQC), and some of the government's White Papers, have proved extremely informative. In the RSA, the research reports stemming from the Committee of University Principals (CUP), the Committee of Technikon Principals (CTP), and the Certification Council for Technikon Education (SERTEC) have provided useful data and findings.

Suffice it to say that the amount of literature, and the formal

publications on the topic of quality in education, are quite daunting and an adequate literature overview would need a whole chapter to do justice to all the sources.

3.   THE CENTRAL THEORETICAL PROBLEM

This study is a part - a significantly important part - of the whole issue worldwide of ensuring that standards and levels of quality in higher education do not decline in the face of the onslaught of a number of factors. Among such factors one could enumerate the world's steadily reducing natural resources, the dramatic population increases and the accelerating internationalism in trade and tourism and the general mobility of people and products.

The main thrust of this study revolves around the concept of standards and quality in higher education as it has evolved during the last twenty years in a number of sophisticated education systems. For this reason it has great significance for the technikons, universities and colleges in the RSA.

Allied to the reasoning underlying the development of particular approaches to quality and standards in the UK and the USA is also the issue of the devising of an appropriate "model" which will provide a framework within which higher education institutions in the RSA can function.

It is very clear, therefore, that the development of the European and UK traditions in higher education relating to the preservation of standards and quality, resulted from longstanding practices which evolved over centuries. Such traditions became the "benchmarks" for younger systems, such as those in the USA and Canada, and more recently the system in the RSA.

The more one examines the situation in the UK, Europe and the USA, the more the question arises: In what way can their experiences be of benefit to those involved in higher education in the RSA?

The concepts which therefore emerge, and which are analysed include those of identifying the problems and needs relating to standards and quality in the higher education communities both in the RSA and elsewhere. Also included are necessary concepts for the provision of adequate options and opportunities for the development of mechanisms and procedures for ensuring and maintaining such standards in higher education as will be acknowledged and accepted by the international community. The creation of a suitable framework for the selection, processing and graduation of candidates with potential in the emerging dispensation of the second half of the 1990s and into the next century, is paramount in this study.

The specific, theoretical problem which is central to this study is the development of an appropriate standards model for higher education in the RSA. Such a model will be required to take full cognisance of the changing social and political milieu. It will have to provide a solution for the masses which feel deprived, over many years, of an opportunity of sound primary and secondary schooling and even less opportunity for attempting to gain a higher education. A suitable solution (model) also requires an effective means of implementation and the present system, which is currently in a state of flux, will have to be greatly modified in order to satisfy the aspirations of future students. This is a secondary, theoretical problem which underlies the assumption that standards and quality can be achieved in higher education despite the major problems which have to be faced in the RSA.

4. DEFINITION OF KEY CONCEPTS

The key concepts which are considered are those of standards (including norms and criteria), quality and its related concepts, excellence, accreditation and validation. Other key concepts include the inevitability of an eclectic approach (which implies also comparisons) and adaptation of selected ideas in the peculiar situation prevailing in the RSA.

4.1 Standards

The term "standard(s)" is used in various forms throughout this study since it has been defined in many different ways. However, it is generally used in order to provide a basis for measurement, a criterion for an established or accepted model. In this study it refers also to a definite level of excellence or adequacy which is required, possible, or is aimed at (Chambers, 1966:1076). In many circles it is normally taken to be an objective goal or target that may be used to evaluate the outcome or result of an activity. The term indicates the demands with reference to the range, depth and level of difficulty of the minimum content or skill which should be mastered in pursuit of a goal. Suffice it to say at this initial stage that the meaning and significance of this term and its myriad implications and ramifications will be thoroughly examined in this study.

4.2 *Norms and Criteria*

A "norm" is a rule, a pattern, a type, or an authoritative standard. It is the ordinary or most frequent value or state related to an activity. In educational terms "norm" often indicates the criterion according to which it is determined to what extent a learner has succeeded in completing an instructional or broad curriculum in terms of the aim pursued.

The term "criterion" refers to a means or standard of judging which is often stated in the form of a test, a rule, a standard or canon. It is therefore closely allied to the concept of a norm and is often used, in educational circles, interchangeably with the term "norm" (Chambers, 1966:250 & 729).

4.3 Quality and Related Concepts

Any attempt at defining "quality" is extraordinarily difficult because it subsumes a number of interlocking, cross-cutting criteria. In taking account of such a construct it becomes clear just how elusive the issue of quality is. It is essential when

selecting criteria for determining quality that one selects the appropriate ones for the purpose since quality judgements do not take place in a vacuum.

The assessment of quality is both complex and value-laden. There is no simple uni-dimensional measure of quality. In the same way as the definition of what constitutes high quality education is multi-dimensional, so there is no simple prescription of the ingredients necessary to achieve high quality education. In sum then there is not a single, tight definition of quality since it entails so many varied dimensions.

A number of expressions stemming from the word "quality" have emerged during the last three decades. Examples include "quality control"; "quality circles"; "quality assurance"; "total quality management"; and so on. Since these terms are fully analysed and described in the text, brief definitions seem inappropriate at this stage. They are all obviously linked to the central term "quality" and are merely more specific applications of the mother term and thus are more easily definable.

4.4 Excellence

The term "excellence" implies great merit or worth and any excellent quality and the surpassing of others in some good quality. It also implies something that is good in a high degree (Chambers, 1966:370).

In an educational sense excellence lies in an institution's ability to affect its students and staff, to enhance their intellectual and scholarly development and to make a positive difference in their lives.

4.5 Accreditation and Validation

Various definitions of accreditation have been proposed over the years. However, it seems easiest to describe the process as the recognition of educational institutions which follows after the

various programmes which they offer have been evaluated for performance, integrity and quality. Such recognition or accreditation entitles them to the confidence of the educational community and the public. Accreditation has a dual purpose, namely, quality assessment and enhancement. The process must therefore succeed in evaluating institutional or programme performance based on stated objectives and in motivating continuous planning for improvement.

The term "validation" operates in higher education on at least three levels of meaning (Church, 1977:6). Firstly, it implies concern for resources and organisation. Secondly, it presupposes a scrutiny which ensures that proposals are in line with prevailing norms or assumptions, and, thirdly, it implies an underwriting of the end product of the course in question. The practice of validation is an essential part of the university tradition in the UK. It is now regarded as not just a term for testing items in programmed learning but it can also mean "the process whereby an educational institution may submit formal plans to the scrutiny and approval of an outside body" (Rowntree, 1981:339).

Validation is a process, which, if it finds that a proposal for a degree scheme is well provided with resources, justifiable in theory and capable of successful application, gives credibility to its status and operation (Church and Murray, 1983:28). Such validation was done by a public body such as the National Council for Technological Awards (1955) and later the CNAA (1977) and more recently it is being undertaken by the Quality Council for Higher Education (1992).

4.6 An Eclectic Approach

The essence of an eclectic approach is that of selecting or borrowing. It entails choosing the best out of everything. An eclectic is one who selects opinions from different systems.

In its educational context this approach is based on the

assumption that other higher education systems, such as those in the UK and the USA, have conducted much research in the field of standards and quality and that such experience may well be of value to educators in the RSA. For this reason it behoves us to take note of the ideas and findings stemming from acknowledged authors overseas and to selectively borrow and adapt such ideas if they prove transferable to a different and peculiar environment.

4.7 Adaptation of Selected Ideas

Since an eclectic approach has been suggested as a sine qua non in this study, it follows that the adaptation of the selected or borrowed concepts is essential. The transplantation of an educational tradition or practice from one system to another must needs take account of historical, social, economic, political, and other factors. Educational practice is "cocooned" within a community and a society and is often vulnerable when removed from the elements which nurtured it. For this reason cognisance must be taken of the adaptation process and its complexities. Adaptation which is done sensitively, and after taking account of all known factors, can be valuable and is the very essence of the eclectic approach. Adaptation is also usually less costly and more meaningful as it has taken into account the vast resources of large systems overseas and the combined efforts of many astute educators in a number of countries.

5. ASSUMPTIONS UNDERLYING THIS RESEARCH

The main assumption underlying this study is that vast numbers of disadvantaged and underprepared school-leavers are applying for entry to higher educational institutions and that standards are being threatened by this fact. This basic assumption is corroborated by evidence and concern from educators throughout the RSA.

Allied to this main assumption is the fact that many sophisticated higher education systems overseas have experienced

such an influx of students. The resultant impact on the quality of the programmes offered and the lowering of standards is authoritatively documented and is not merely based on speculation.

Another fundamental assumption is that the public and private sectors in the RSA are greatly concerned about the higher education system and its rapidly changing face. This is evidenced in more concerted efforts by the commercial and industrial leaders to involve themselves with planning of curricula and the emergence of suitably prepared graduates.

Underlying these assumptions is the view that the tremendous pressure by political and social organisations to reduce entrance requirements by opening wide the doors of higher education will almost certainly lead to a decline in quality and standards even though this was not the intention of those who brought pressure to bear.

6.   THE RESEARCH HYPOTHESIS

The central, theoretical postulation has been formulated on the basis of an identified need in the RSA for a means of ensuring and preserving acceptable standards (by international norms) and quality in higher education. It has been assumed that this need may partially be met by the adaptation of selected overseas systems of quality control and the evaluation and accreditation of standards.

The fundamental hypothesis is therefore the following:

> *Since the social and political pressures and the sheer weight of numbers of underprepared students clamouring for entrance into higher education will force down the standards/quality of achievement, fairly drastic action will have to be taken in order to counter the pending standards/quality crisis. Such action will include the utilisation of models and frameworks used*

*successfully in leading overseas higher education
systems.*

A secondary hypothesis permeating this study may be summed up as
follows:

> *The lowering of HE standards, which seems inevitable,
> will seriously affect industry, commerce and the whole
> social fabric. Ultimately the credibility of our
> higher education institutions and the acceptability
> and competence of their graduates will be undermined.
> For this reason solutions/models are imperative if
> higher education is to retain its respectability and
> its mission during the late 1990s and into the next
> century.*

7. OBJECTIVES OF THIS PROJECT

At the conclusion of this study the reader will have been made
aware of the following aspects of higher education:

* The importance and significance of maintaining
  international standards despite the many factors
  militating against it in HE.

* The meaning and implications of standards and quality
  in HE and the many aspects thereof.

* The need for enlightened enrolment techniques and
  evaluating procedures especially for first-time
  students in HE.

* The problems and expectations which accompany an "open
  door" enrolment policy and the resultant raised
  aspirations of less competent students.

* The necessity for developing a greater understanding
  of the concept of "value-added" in HE and how it may
  be measured.

*   The impact on HE of a "juvenile" population and continued population growth especially as it relates to large numbers of students seeking entrance.

*   The full significance of lowered standards and quality for the esteem and credibility of HE institutions.

*   The implications of changing financial policies and the reduced contributions from both public and private sectors.

*   The value of considering and weighing overseas experiments and measures which have been taken to ensure quality and standards in HE.

*   The necessity for consideration of business techniques in quality control and their application in HE.

*   The sociological impact on the whole social fabric of all our communities if we allow an erosion of standards and quality in HE.

*   The need for constructs/models/designs which provide for the abovementioned factors and which fall within the obvious constraints imposed on HE.

7.1 Research Design

The execution of this project in England, the USA and the RSA was hindered by a number of factors and aided by others.

The major hindrances included the following:

*   Lack of money owing to the increasingly poor exchange rate of the Rand against the US dollar.

*   Inability to buy appropriate books and journals and other information owing to high costs.

* High postal rates from the UK and the USA inhibited the sending of documentation to the RSA.

* The relatively brief period of four months (which had to be spent overseas) only provided enough time to gather basic material and travel to a number of campuses in the UK and the USA.

The "plus-factors" included the following:

* Far greater readiness by overseas academics and institutions to assist researchers from the RSA - this also applied to state and semi-state HE facilities.

* The generosity of overseas researchers and their willingness to share documentation and findings - they were eager to assist wherever possible.

* The facilities provided for the author as a visiting scholar at Northeastern University in Boston for about ten weeks - this included library and other research access throughout all the universities and colleges in the greater Boston area.

* An acknowledgement in the RSA and overseas that this topic needed serious investigation, therefore all persons contacted were very willing to analyse and discuss the issues raised.

The factors mentioned above, both positive and negative, have resulted in a research design which is partly explanatory, partly descriptive, partly predictive, and partly based on first-hand experience and experimentation. A substantial portion of this study is based on highly reliable data-information sources such as the publications of the CVCP in the UK whose validity cannot be doubted.

7.2 Methodology

As a result of the factors mentioned above, the methodology has been unsophisticated and has entailed a thorough examination of every available book, journal or article on quality and standards in the USA, the UK and in the RSA.

After the identification of the most appropriate material it has been summarised and sifted in order to achieve the objectives mentioned above.

Another method which bore useful results was a series of visits to carefully identified repositories of information. These included the outstanding libraries and resource centres at Northeastern University, Boston University, Boston Public Library, Harvard University, and the Massachusetts Institute of Technology, all situated in the Boston area in the USA, as well as a number of campuses in other parts of the USA. In the UK visits were made to a number of former Polytechnics (as they were still named in June 1992 when the visits took place) and to the offices and library of the now defunct Council for National Academic Awards and the central offices of the Committee of Vice-Chancellors and Principals, all located in the London area.

Within the RSA many opportunities have presented themselves for data collection at conferences, national forums, and on the campuses of a number of technikons and universities. Only data which has been verified has been included and the large number of publications, relating to standards and quality in higher education, has been selectively referred to in order to ensure the integrity of the data.

Personal interviews with leading figures and questionnaires addressed to small groups of well-informed and strategically placed educators, provided a sound base particularly in the chapter relating to the RSA and a model for the future.

The representativeness of the sources is not relevant since there

are as many "authorities" on educational standards and quality as there are educators, and views are often widely divergent. The empirical value of much material on this topic is uncertain since value judgements, in all but the exact sciences, are the main basis of evaluation and cannot therefore be easily verified or confirmed.

8. THE STUDY OF QUALITY AND STANDARDS

Fundamental to this whole study has been an awareness of the fact that the RSA needs to achieve a good measure of consensus among educators at all levels as to the precise nature of regional and/or national standards. It also needs to gain clarity on issues such as defining and evaluating quality in education and understanding the implications of allowing standards to drop and the resultant loss of credibility amongst the business and industrial employers.

The full import of the terms "standards" and "quality" and the complexities involved in understanding and evaluating them, needs to be appreciated by the public and by the higher education community. It is all too easy to resort to simplifications and generalisations when referring to such a topic because few people, even amongst educators, really grasp the intricateness and the convolutions involved in analysing this issue.

If this study succeeds in creating greater awareness of what is entailed in providing education of an acceptable standard and if it provides a norm for helping to understand what quality in education comprises, then it will have achieved some of its objectives.

9. DIAGRAMMATIC REPRESENTATION OF THE RESEARCH CONSTRUCT

In order to summarise this chapter the following diagram indicates how this study is constructed and how each individual section links with the whole concept.

DIAGRAM 1

DIAGRAMMATIC REPRESENTATION OF RESEARCH CONSTRUCT

8	1	2
Models summarised and presented diagrammatically Findings, closing remarks and recommendations	Preface; Glossary; Contents; Summary RELEVANT THEORY AND RESEARCH Literature overview Theoretical problems Definitions of central concepts Assumptions underlying this research Research hypothesis Objectives of the project Diagrammatic representation	Defining standards/criteria/quality/ excellence - academic & vocational Use of concepts in different HE systems and in other contexts (eg. industrial & commercial - five approaches) Value-added as factor

7		3
Quality within the context of the RSA Studies and reports on standards and quality in HE Technikons and universities - background and concerns Quality control at technikons Model for preservation of standards	CENTRAL THEME STANDARDS AND QUALITY IN HIGHER EDUCATION	Total quality management - origins & applications in industry & commerce TQM and social change TQM - its implementation and definition Strategic quality management

6	5	4
Perspectives on standards in education in the USA and public concern Egalitarianism and its impact Open door policy & its effects on HE Grade inflation The Coleman Report & its aftermath	The UK system of HE Technical and vocational education in the UK Industry & HE in UK Quality management in HE Control of academic standards TQM in HE in UK	Higher education & TQM Adaptation of TQM to HE Examples of TQM applied in USA & UK Total quality forum - business and the campus

——▶ Lines of articulation and information flow

Source : This author (T C Shippey)

CHAPTER TWO

DEFINING STANDARDS AND QUALITY IN EDUCATION

FOREWORD

The elusive nature of many of the key words in this study is illustrated and analysed in this chapter. It serves as a general introduction to the problems surrounding the issues of "quality" and "standards" and it indicates how wide-ranging the definitions and interpretations are.

What emerges from this chapter is an awareness amongst educators in many countries of the complexities of the "quality" debate and the dangers of oversimplification.

Since more recent usages of "quality" in education have been derived mainly from post-1945 practices in industry and commerce in Japan and the United States, reference has been made to understanding "quality" in that context. The transfer of such applications to higher education is an inevitable theme throughout and is echoed in all the ensuing chapters.

The question of "value-added" and its significance in higher education is briefly referred to since this emerges later in the study as an essential component of any "quality" evaluation.

1. STANDARDS

The difficulty in writing about standards is that the concept is, like "truth", or "goodness", or "beauty", both logically indispensable and yet impossible to define without considerable philosophical elaboration. Such a thought worries those with a narrow conception of rationalism who believe that all concepts can be operationally defined and their use made clear and unambiguous. However, we cannot abstract a concept such as "standards" from the wider social and educational context in which it has acquired its meaning.

In the early 1980s when people spoke of standards and quality in higher education, they spoke of them in rather lofty and abstract terms. This was not because of any inability to define these terms, but because there was a high level of consensus in the UK, and perhaps throughout Europe (and also including South Africa), about the issue of academic standards and quality. There was also an assumption that certain universities, in various parts of the world, were in themselves the benchmark of standards and quality, against which all other institutions could be measured without further defining the ingredients of standards and quality, or indeed the criteria by which these perceived standards and quality had been achieved (Perry, 1991:91).

When referring to the word "standards", Reynolds (1986) states in a paper prefacing a report by the CVCP in the UK, that it is sometimes used to indicate excellence ("His work is of a high standard"), and sometimes to refer simply to a neutral measure ("standard size"). In a higher education system it could be applied in both senses to the input (the standard of the students), to the process (the standard of teaching, of curricula, of assessment), and to the output (the standard of the graduates). It is easier to identify standards, in the sense of measures that can be used as comparisons, at some of these points than others. Thus A level grades may measure the standard of student input, and honours degree classifications may measure the standard of graduate output, but it is more difficult to find a measure for teaching. Even when measures can readily be found, the two critical questions presented by all social science indicators have to be asked: are the indicators valid (do A level grades measure what they purport to measure?), and are they reliable (do honours gradings in one case - one institution, one subject - measure the same things in other cases - other institutions, other subjects?)? "A" level grades may well provide comparable measures of the standards applicants have reached (provided the marking procedures of different examining boards are comparable), but, as much research has suggested, they may not provide a good measure of potential for success in higher education. This standard has therefore low validity as far as

most purposes of higher education are concerned. Degree gradings
may be reliable if they are measuring the same things. However,
a first class in chemistry is measuring different things from a
first class in history. It is also evident that a first class
in history, which is assessed entirely by examinations within
fixed time limits, measures different things from one in which
a significant amount of the assessment is derived from course
work (Reynolds, 1986:3).

After consideration of some of the conceptual problems of quality
and standards one becomes aware of the pitfalls of comparative
thinking. According to Reynolds, the statement:

> "'This system is better than that one' requires an
> explicit and exclusive determination of the purposes
> of higher education and a universally-applied
> blueprint of entry criteria, of teaching and
> assessment processes, and of classification
> procedures. Such an extreme position would be as
> evidently unwise and unacceptable as the other extreme
> of the total abandonment of any attempt to wrestle
> with the problems of quality and standards, thereby
> allowing every authorised institution to proceed
> entirely according to its own unfettered judgement"
> (Reynolds, 1986:3-4).

In the 1990s the issues concerning standards and quality have
greatly changed. Standards and quality are no longer seen as
philosophical concepts. They are now being defined and measured
largely by those who fund the system rather than by those within
it, and within their definitions and criteria they are being
rewarded, or their absence punished, in terms of hard cash
(Perry, 1991:91).

In examining what standards are it is apparent that the meaning
of any word is related logically to its use within a language or
within a field of discourse. Hence the importance of locating
"standards" within different traditions and wide discourses -
including the dominant metaphors of each one (Pring, 1992:19-20).

There are certain logical features of the word "standards" and certain philosophical considerations about human action which help us decide between different traditions - or at least the limitation of each. First, there is something odd about standards going up or down. The "performance" of pupils, as measured by standards, goes up or down, but not the standards themselves. If standards were to rise or fall, that rise or fall could only be judged to be so against a different type of standard - viz. those standards whereby one assesses the standard of standards, and thus one is into an infinite regress.

Second, one might see "standards declining" as meaning that "performance" is not coming up to standard to the extent that it once did or that performance is coming up to a standard which is different from that which once it came up to - and different in the sense that it is less demanding than the other standards. Levels of standard, as in a National Curriculum, must mean something of this kind - that is, the same kind of activity envisaged at various levels of difficulty and thus differentiated in some norm-referenced way. Each level represents a different standard, but the standards are logically related in so far as success in one presupposes success in the others. In this way one has differentiated, hierarchically-related standards.

Third, standards are benchmarks, they are criteria whereby one assesses or evaluates the quality of a particular activity or process. And that quality must depend upon the identification and the purpose of the activity - upon the values that are embodied within it. Strictly speaking, there are as many standards as there are activities; there are as many activities as there are intentions and purposes that drive people. According to Pring, there are standards peculiar to house cleaning, painting landscapes, writing Shakespearian sonnets, and appreciating the impact of science on the environment. Moreover, as purposes and values change, so too must the standards whereby we assess those activities. As mathematicians reflect on the nature of mathematics, as employers require different sorts of mathematics in order to meet a changing technological world, so

does the value that we attach to mathematics change and so does the nature of the activity - and so, too, therefore, do the standards whereby we judge achievement within mathematics. Similarly, just as society comes to value different forms of life, just as we come to embrace different virtues (enterprise rather than modesty, autonomy rather than obedience), so do our moral purposes change, and so too do the standards whereby we assess moral worth (Pring, 1992:20-21).

Pring summarises the situation in the following way:

> "Standards have neither gone up nor come down. They have simply changed. Such considerations make nonsense of the aggregate of marks whereby we talk of the standard in mathematics or 'the' standard of morals. And it makes it logically impossible to make sensible comparisons of standards across the generations - or, indeed, across cultures unless those cultures and those generations share a common set of values with regard to that activity" (Pring, 1992:21).

1.1 Towards a Definition of Standards

It is necessary to propose certain guidelines to the more precise use of such words as standards, criteria, quality and excellence, words that are vital to the debate but are sometimes used interchangeably, often loosely, and only occasionally with clear and distinct meanings.

The fact is that these terms have overlapping usages which only sometimes lead one into difficulty. In attempting to clarify this issue Graeme Moodie refers to the Shorter Oxford English Dictionary (3rd edition, 1964) where, in his view, the definitions of "standards" and "criteria" merge. A standard is defined as, among other things, "a criterion", and the latter is defined as, among other things, "a standard by which anything is judged". However, a standard is also defined as "an example of measure or weight", a yardstick as it might be; and a criterion

as deriving from a Greek word meaning "a means for judging". A standard therefore is a literal or metaphorical yardstick, an exemplar of some means of measuring a dimension. (As Moodie points out, in areas like morals, aesthetics, and politics, where precise measurement is impossible, a standard would be a position on some spectrum or an index of a particular attribute, as it might be good/bad, beautiful/ugly, or right/left. Education is probably a similar area). However, one may still have to exercise a judgement about whether or not something meets, falls short of, or surpasses a particular standard or yardstick - the bases for such judgements are criteria. Where a precise measure is available ÷ of spatial length for example - the usage suggested by Moodie may be a distinction without a difference, but in other circumstances the difference is real and the distinction necessary (Moodie, 1988:3). Moodie illustrates this point in the following way:

"... the standards expected of a senior lecturer are undoubtedly higher than those expected of a newly-appointed lecturer; but in most institutions it is felt necessary to list the criteria (publications, teaching skills, experience, promise and so on) by which candidates for promotion will be judged, not to mention additional criteria (the senior/junior staff ratio, or the availability of finances, for example) which have no bearing whatsoever on the standard reached by candidates" (Moodie, 1988:3).

Another common source of ambiguity is that "standards" are sometimes used to refer to some ideal or high level (as in calls to "defend standards") and at other times, more neutrally, to refer simply to the idea of having any defined or agreed "yardstick". The adoption of the second usage as the normal one would seem logical in the context of this study. Such usage makes it easier to think about what standards ought to apply to different levels and spheres of activity in education, for example, at what age ought children to know about glacial calving? And by what stage, if any, ought students in higher

education to be able to write their own computer programme or an essay in a foreign language? It also makes it easier to contemplate 'lateral' shifts of standards, i.e. changes from one kind rather than one level of performance to another.

In other practical contexts, it is not the distinction between standards and criteria that is important, it is, rather, the related question of quality and how it should be judged. The distinction is nevertheless relevant, if only as a means of emphasising that quality is not the same thing as "meeting high standards". Conventional or accepted standards, in changing circumstances, may become the enemy of high quality (as established rules of composition and harmony are sometimes said to inhibit musical creativity) - in other words, it must not be forgotten that the criteria for deciding whether a standard is met may well diverge from those appropriate to judgements of quality (Moodie, 1988:4).

In addition to the example referred to by Moodie, there is another ambiguity which arises in discussions of educational standards between the idea of "standards" and the idea of "excellence". Those who wish to promote or defend "standards" are usually concerned with what they perceive to be high standards. However, as we have already observed, the concept of a standard is normatively neutral. Yet another writer in the field analyses the term standards in this way:

> "As a noun it (standards) has six separate definitions
> ... but they all include the idea of a fixed scale of
> reference against which other phenomena of a similar
> type can be assessed. Clearly a standard has much in
> common with the Socratic 'ideal' with which objects in
> the real world can be compared. In the pre-scientific
> past such standards were essentially arbitrary and
> depended on the conventions of the times. ... As
> modern science developed it became necessary to adopt
> some coherent system of standard measures for the
> scientific study of the natural world" (Williams,
> 1988:32).

The view has been expressed that there are other standards which are less universally accepted: the ideal is subjective in that there exists no concrete expression of the standard against which other material manifestations of the phenomena can be compared. Beauty is one such, intelligence may be another. Most people imagine that they can identify beautiful objects or intelligent people when they come across them, and indeed people often agree with each other about their judgements. However, perceptions vary between people and they change over time (Williams, 1988:32).

Another effect of scientific advance is that many standards which previously depended on qualitative judgement are replaced or supplemented by the development of objective measures. Colour and sound are both examples of phenomena where previous subjective judgements can now be supplemented by measures of wavelength and frequency, which permit the sharper definition of, for example, "green" or "middle C" that is necessary for the scientific investigation of colour blindness or tone deafness (Williams, 1988:33).

The world of sport provides several examples of different types of standard. In some sports there is no doubt about the standard of performance of any individual (covering a specific distance in the shortest time) and it is possible to compare the achievement of today's athletes with those of the past. We can state quite confidently that the standards of such achievements have risen considerably during the last thirty or forty years.

Other sports are combative and norm-referenced (eg soccer) but there is no way of knowing whether the winners of a longstanding competition in the early 1990s really are better than the winners of that same cup in the 1930s.

A third category of sport (eg gymnastics and ice figure skating) requires the standard achieved to be assessed by expert judges whose evaluation is based on knowledge and experience. Peer review sets the standards and decides the extent to which they

have been reached. This raises an interesting educational point about the judgement of performance in the applied sciences and technology compared with more academic subjects. In the former case the main question is 'Does it work?' or 'Can it be proved?' In the latter case final judgements are made by other specialists.

The question of standards and criteria can be succintly summed up thus:

> "On the whole the simpler is an activity the more readily applicable are objective criteria or standards: the more complex the activity the more standards depend on judgement. Running a hundred metres is quite straightforward and there is little room for dispute about who does it best. Playing a symphony is more complicated and standards of performance depend more on judgement" (Williams, 1988:34)

1.2 Academic and Vocational Standards

> "The notion that high academic standards depend only on academics having the freedom and the resources to do their own thing in their own way is one of the many myths of the 1960s that provides little guidance as we approach the 1990s" (Williams, 1988:44).

1.2.1 Academic Standards

The contrast is often drawn between the academic and the vocational. This distinction over-simplifies reality but it nonetheless permeates our thinking about the aims of education - and thus about our conceptions of "standards".

The academic tradition lays stress upon intellectual discipline and upon the high standards of thinking, arguing, enquiring, experimenting, and speculating that are part and parcel of an

intellectual discipline. Such disciplines are characterised by their own distinctive logical structures - by the concepts that must be mastered if one is to think in a disciplined way, by the exacting methods of enquiry, by the special demands of proof and of evidence. To learn to think in a disciplined way is to grasp certain rules of procedure, concepts, ways of testing the truth or correctness of what is being said. It is to learn to experience the world from a particular perspective.

Such disciplined ways of thinking develop over time. They are sustained by social arrangements. Partly recognised in learned societies and professional associations, partly reflected in traditions of criticisms and in power structures and authorities recognised by people with similar interests. Academic disciplines therefore have both a logical and a social dimension. They are ways of identifying and of exploring problems which, through criticism and through identification of new problems, are constantly evolving, establishing new standards, new criteria of good performance.

Pring summarises the definition of this elusive topic, namely, academic standards, thus:

> "... there is a dominant academic tradition which sees quality of intellectual endeavour (and the implicit standards of good or bad performance) to lie within specific traditions of disciplined enquiry. Such traditions are defined partly in terms of the relevant concepts, procedures, problems, tests of validity.

> And these concepts, etc. can be used more or less effectively, more or less correctly. Thus there 'are' standards but these, though acknowledged in one's intellectual efforts, are more often than not unspoken. Though recognised in judgements made, they cannot often be anticipated. And the application of these standards does not entail the explicit formulation of them. Hence, the importance of the

'judgement' of those who are authorities within the subject (the HMI, the academics, the professional teachers). And, hence, the importance, too, of a period of initiation - the gradual recognition by the learned of the many standards which are acknowledged within the exercise of intellectual disciplines" (Pring, 1992:12).

1.2.2 Vocational Standards

In contrast to academic learning, vocational learning has come to stress not tradition, but job relatedness. It requires the acquisition of those skills and understanding which are required for doing specific jobs. Successful vocational learning signifies fitness for purpose; one first identifies the requirements of the job and then one specifies the competences/ standards that enables one to do the job. The competences, revealed in the undertaking of standardised, job related tasks, constitute the standards. They are tested out in "on the job performances", which thus become the indicators that the person is competent and thus has met the explicitly stated standard. Performance indicators are not the same as standards - it is always logically possible that a particular performance might be sheer chance and does not really demonstrate the mastery of a particular competence. But, nonetheless, the description of the indicators, of the competence and of the tasks on which the competence is to be demonstrated, must be sufficiently close for several successful performances to be conclusive evidence that the standard has been reached.

In the UK, for example, the development of national vocational qualifications (NVQ) presupposes this connection between standards, competences, and performance indicators. Thus, an NVQ is defined as:

"a statement of competence clearly relevant to work ... The statement of competence should incorporate specified standards in - the ability to perform in a

range of work related activities; and - the
underpinning skills, knowledge and understanding
required for performance in employment" (Jessop,
1990:10).

Competence in each element can be verified through performance, and overall competence at a defined level, ascertained. Essential to the whole enterprise is the precision with which competences are stated and the performance indicators made explicit. Unlike the standards implicit within academic studies, the standards of vocational competence are quite explicit, and the performance criteria so clear that there can be little doubt about what the successful learner can do.

Unlike academic standards, vocational standards are not mysterious entities slowly internalised, requiring a gradual apprenticeship, possessed "more or less" and in varying degrees. Rather, one either is, or is not competent. One can either do the job that is analysed in terms of the range of performances or, as performance indicators show, one cannot. The hairdresser can either shape the hair as requested at the nape of the neck or he/she cannot. In that sense standards are absolute.

Moreover, the competence is demonstrated in the performance. Courses might or might not be necessary for the achievement of competence - the end is logically disconnected from the means. And therefore courses, where they exist, are assessment led. They are but a means to an end. They, unlike the context of academic standards, do not require, as intrinsically necessary, the apprenticeship, the participation in the very activities through which the standards come to be recognised.

The apparent advantage of the NVQs, and of this conception of a list of competences relevant to all the jobs in every aspect of industry and commerce, is that it eliminates the subjectivity, the dependence on authority which is so often associated with judgement of quality within the academic tradition. For, in the case of vocational standards, these are the explicitly stated

competences defined in terms of the observable performances which
the competent person can be expected to do. They depend not on
the authority of experts, but on the analysis of tasks. They
reflect, quite objectively, a fitness for purpose.

2. QUALITY

> "Quality: we know what it is, yet we don't know what
> it is... So round and round you go, spinning mental
> wheels, and nowhere finding any place to get traction.
> What the hell is quality? What is it?" (Robert M.
> Pirsig, 1974)

2.1 Academic Quality

One of the most provocative and stimulating writers on the topic
of quality in higher education, Sir Christopher Ball, has much
to say about this controversial subject. He says, for example,
in an article entitled "What the Hell is Quality?" (Ball,
1985:97), that this topic is complicated by three of its basic
aspects. First, it is undoubtedly very difficult.
Intellectually and academically this is one of the most difficult
ventures one could undertake, namely, to try to define what we
mean by quality in higher education and what we can do about it.
One has to beware, says Ball, of those who think they have easy
answers, for they are almost certainly wrong or "incomplete".

Second, there is a sensitivity about engaging in a debate on the
question of quality in higher education since it is highly
contentious. It is also enormously sensitive within an
institution, among members of staff, among students - and, when
a planning body starts talking about quality in higher education,
everyone fears the worst.

Third, states Ball, quality is important. It cannot be left
aside: it has to be tackled (Ball, 1985:97). Ball sums it up
very briefly:

> "'Quality in education' is a subject extraordinarily
> difficult to come to grips with, and full of pitfalls.
> There is no single final answer to the quality
> question, and we should not look for it. But the issue
> cannot be avoided. My provisional conclusion ... is
> that the best way to address it is to ask 'Quality for
> what?' Quality is fitness for purpose" (Ball,
> 1985:96).

Evaluating the question of quality in respect of institutions is
probably the most difficult judgement to make, both for the
present and the future. The future presents particular problems
which relate to the continual resource constraints which can be
expected in most western nations from present governments (and
also from any of their successors) and also to the uncertainty
of demographic trends during the rest of the 1990s. In some
countries, eg the UK and the USA, the downward trends indicate
the likelihood of higher education systems needing to be
rationalised. If that occurs then the question of institutional
quality will clearly come to the fore.

Quality in respect of what? In respect of resources? We
certainly need to know about the quality of an institution's
physical resources - the libraries, laboratories, buildings.
Quality in respect of staff? Perhaps this is the most painful
issue to address, but a planning body has to ask itself where the
staff are good, and where they have shortcomings. And if we did
not do that whilst we were at the same time trying to invest for
the future on the basis of strength, staff would be the first to
complain. And quality of students? We need an assessment of the
quality of students. So the word quality, when analysed, reveals
the number of different questions that arise regarding quality
in programmes/courses, departments, institutions, resources,
staff, and students. All these issues need to be addressed.

The analysis of quality is in no sense a single valued exercise.
There is no single dimension of quality of the sort which the
general public would like to have in order to be able to locate

institution X at the top of the list, Y in the middle, and Z at the bottom and thereby claim that you had sorted out the issue of quality in higher education. That is not the picture at all. As Ball sees it:

> *"Quality subsumes a number of interlocking, cross-cutting criteria, which make the picture extraordinarily complex. It is in taking account of this difficult construct and marrying it in with other criteria (cost, regional distribution, student demand, and national need), that a planning body finds the issue of quality a very slippery thing to get hold of"* (Ball, 1985:100).

In developing an analysis of quality, one has to make a distinction between value and excellence, claiming that these two quite different, but nevertheless, interlocking, measurements are wrapped up in the word quality and in a word implicit in it, i.e. "good". One can talk about a good sword (good for killing!) or a good man (referring to his moral qualities) and one therefore talks about the value of a good man and the excellence of a good sword. Value and excellence both lie in quality and are important, but they are two different issues. In the UK, for example, we could say that a student who had achieved a third class Honours pass in engineering was valuable to British Industry, but that he had not achieved excellence on the programme. Conversely, we might say that a student who gained a first class Honours degree in English was excellent at his course, but that he was less valuable to society than the engineering student. We must be clear whether we are talking about excellence or value, or both; and we need to know about both before we make planning decisions (Ball, 1985:100).

For the planner, quality is never a thing of the past. In higher education the measurable things are often already a year, or even two, out of date by the time they get to a national planning body. Some people believe that it is important to count PhDs on the academic staff and compute that as a proportion, or to count

the numbers of "A" students at intake, items that are measurable although the information is not available for some time after the event. But the planning body is preparing for a period of two (or even up to ten) years in the future. The quality assessment it is looking for is not concerned with what the institution, programme, staff and students looked like a year or two ago, but what they are going to be like in two or more years time. We must be careful of making judgements on assessments of past quality, and assuming that they will apply in the future.

In the list of cautions must be included a warning not to overvalue the measurable indices. Most of these, claims Ball, are tempting, but they are will-o-the-wisps. Counting the PhDs of staff in order to assure oneself of staff quality is known by those who teach in, or manage higher education, to be a crude, simplistic and misleading criterion, for it does not address the question "Staff effectiveness for what?" (Ball, 1985:100-101).

Those in higher education should not be afraid of making judgements since they constitute one of the reasons why quality is so sensitive and embarrassing. However, one eventually has to make human judgements about quality and in so doing, Ball cautions against using too few criteria. He claims that we are more likely to get our quality judgements right if we keep approaching them from different points of view. Ball sums up the question of criteria in his own inimitable way:

> *"Above all, when selecting criteria, we must select the appropriate ones for the purpose. Quality judgements do not take place in a vacuum: the question is Quality for what? To find the right institutions to put special research funds into? To determine which are the best art and design courses on which to build for the future ...? We must look for appropriate criteria" (Ball, 1985:101).*

Another important point to examine is that of "critical mass" and in so doing one must not confuse the "necessary" conditions for

quality with "sufficient" conditions. In some departments five
or six members may be a buoyant size, while for some programmes,
the evidence suggests much larger numbers for buoyancy i.e. the
'critical mass' has to be bigger for the necessary conditions of
quality to develop.

These ideas represent the necessary but not the sufficient
conditions for quality. Christopher Ball sums up this issue as
follows:

> "Certainly in institutions, once one has created the
> necessary conditions, the question then arises how can
> one go on and create the sufficient conditions for
> real quality work? The critical remaining question
> relates to 'fitness for purpose'" (Ball, 1985:102).

In a paper written in 1986, Reynolds states that quality has no
meaning except in relation to purpose or function. A car that
is of high quality for racing purposes would not be of high
quality for comfortable travelling and vice versa. In this sense
the quality of a higher education system can be evaluated only
in terms of the extent to which it achieves the purposes for
which it is intended. Higher education has many purposes and
there will be differences of opinion about the priorities to be
accorded to those purposes. For a senior governmental education
official, a high quality system might be one that produces
sufficient trained engineers and scientists, while for an
industrialist it might be one that produces graduates with
flexible and adaptable minds. According to Reynolds references
to "maintaining" or "improving" the quality of higher education
should always be placed in the context of the purposes to which
the writer gives priority (Reynolds, 1986:3).

2.2 Quality - An Industrial Concept

Pauline Perry (1991) reminds us that the idea of quality is after
all as much an industrial concept as it is an academic one. The
19th century founder of Lucas Industries in England, Joseph

Lucas, once said, "Quality is remembered long after price is forgotten". He knew, says Perry, that the standard of quality we expect is related to the price we are prepared to pay. No one expects to purchase a Rolls Royce for the price of a Honda Civic, and yet as customers we understand well what we mean by quality at different price levels.

The urgency of clarifying that particular issue in institutions of higher education is becoming more apparent each year, as the amount of money per student is driven downwards, and institutions adjust in various ways to accommodate that fact. We must be open, claims ·Perry, when referring to higher education institutions, about the different standards of quality we are offering at changing price levels (Perry, 1991:92).

There is presently general agreement on the elements which together make up a judgement about quality in higher education. These two major principles are firstly, that research activity is a necessary part of the equation of quality judgement of either an institution as a whole or an individual section (school/department). Secondly, that the quality of teaching as experienced by the student is an important ingredient in the judgement.

In examining the link between research and teaching we have to consider the purpose of higher education. This could reasonably be construed as meeting the needs of its students in the widest possible sense, including their personal, academic and learning needs, as well as their long term need to find fulfilment in contributing to their society. This means that in striving to deliver the much sought-after "quality" which we seek, teaching must be informed by appropriate research, whether practical and applied, or basic. It also means that those who teach should be in tune with the industrial, commercial and cultural excellence in practice which is found in the world outside (Perry, 1991:93).

2.3 Appropriate Criteria for Determining Quality

In a publication in 1985, Alexander Astin, a well known writer

on higher education in the USA, approached the debate on criteria from a very different perspective. He argues that neither traditional nor egalitarian definitions have caused the well-known rankings ("pecking order") of institutions. According to Astin, colleges and universities are judged to be excellent on the basis of four variables, all of which he deems to be inappropriate criteria of quality.

The first variable is reputation based on so-called "beauty contests". Such listings are usually extrapolated from surveys in which presidents (rectors), deans, department heads, teaching staff, or professionals in selected fields are asked to rank institutions. Interestingly, ratings generated by such methods are extremely consistent over time and across groups. Astin discovered through multivariate analysis that the significant variables influencing the ratings are: (1) undergraduate selectivity; (2) per student expenditures; (3) the number of doctorate-granting departments; and (4) the number of doctoral degrees awarded. Obviously, all of these are proxy variables – that is, they stand for something other than what happens to students.

A second measure of quality is what Astin calls the resources view. Institutions with large endowments, highly paid teaching staff, and healthy research funds are considered excellent. Of course, this measure correlates highly with reputational indexes.

A third measure comes closer to focusing on outcomes. Institutions are rated excellent if they have low attrition rates and a large proportion of alumni who earn doctorates, earn good salaries, and get listed in Who's Who. Again, these scales correlate positively with the reputational and resources view of quality.

The final approach which Astin summarised is what he calls the curricular content approach. He notes that all institutions rated as excellent have strong liberal arts emphases (even MIT). Not surprisingly, the same set of institutions come out on top

when this index is used as when the reputational, resources, and successful alumni scales are used. This fact may suggest that these four variables are, indeed, appropriate proxies for quality. However, Astin (1985:60-61) rejects all these approaches, preferring the "talent-development" concept of educational quality. This view focuses sharply on the impact which institutions have on their students and teaching staff:

> *"Its basic premise is that true excellence lies in the institution's ability to affect its students and faculty (teaching staff) favourably, to enhance their intellectual and scholarly development, and to make a positive difference in their lives"* *(Astin, 1985:60-61).*

Such a definition would seem appropriate as a broad, all-embracing way of evaluating quality in higher education.

2.4 Resources and Performance Indicators

In an article entitled "The Missing Bottom Line", Gareth Williams refers to the fact that if there are objective or collectively agreed criteria or standards, indicators of performance present few conceptual problems (Williams, 1988:38). It is an established fact that the many problems in identifying and measuring the "outputs" of higher education have been well-known in the economics of education literature for many years but have been largely ignored until the mid-1980s.

There may well be technical problems about how a particular standard can best be measured, or political problems about who should have access to a particular indicator. There is also the administrative problem that individuals and institutions will manipulate any indicator in order to enhance outside perceptions of their performance. If the agreed criteria are not in practice adequate surrogates for what really needs to be measured, there is the more serious problem that actual performance may be distorted in order to achieve high scores.

This is the real problem with examinations. If they really measure what they purport to measure then many problems would be eliminated (Williams, 1988:38).

There is obviously a link between performance indicators and allocation of resources. An interesting paradox is that resources currently comprise both a reward for good performance and the means of achieving better performance. This conflict between increased resources to improve performance and resources as a reward for high-level performance is likely to be one of the central issues of higher education policy for the foreseeable future.

It is said that there is some relationship between resources and performance. A technikon or university which spends R500 per student per year will almost certainly be inferior to one which spends R3000 per student per year. The main deficiencies of an underfunded institution are likely to be found in:

(i) The quality of academic/teaching staff;

(ii) The quantity of such staff;

(iii) The quality of students;

(iv) The patterns of subjects/programmes offered; and

(v) The quality and quantity of plant and equipment.

2.4.1 The Concept of Value-Added

During the last few years some authors have begun to stress the need for suitable measures of value-added, showing the relationship between input and output measures, but despite some useful conceptualisations there is little to suggest how the concept might be used in practice. Economists have long used a value-added concept in their calculations of rates of return to higher education, based on comparisons of lifetime earnings of graduates and non-graduates. However, this is a crude measure and even if refined considerably it is difficult to see how it could help identify the current quality of individual courses. The alternative of devising some form of pre- and post-test

examinations based on nationally normalised examinations seems an unlikely prospect (Williams & Loder, 1990:11).

Cave et al (1988), review the literature on value-added systems and conclude:

> "... that research in this area is still in its infancy and by no means at a stage where we can say value-added measures can or cannot be made operational at some level" (Cave et al, 1988:21).

The assessment of value-added compounds the problems of finding suitable output measures and there is little point in attempting to develop measures of value-added until accepted output measures are available. Value-added seems likely to remain a concept reminding us:

> "... that different higher education institutions do different things to different students, and that institutions deserve as much credit for recruiting unpromising students and bringing them up to an acceptable level as others do for taking in the ablest students and turning them into national leaders" (Williams & Loder, 1990:12).

2.4.1.1 Value-Added Assessment Programmes

In what would appear to be a direct refutation of the abovementioned views of authorities in the UK, the following programme from Northeast Missouri State University (NMSU) is briefly summarised in order to present a different point of view.

The Northeast Missouri State University Value-Added Student Assessment Programme developed from the proposition that an educational institution should be able to determine the value-added to a person as he or she proceeds through the system. This value-added is demonstrated through student output performances, which serve as a system of accountability to the

university's students, faculty (teaching staff), other staff, and its external constituencies.

While traditional evaluation practices in higher education in the USA have tended to assess only through an individual's competitive output differentials, NMSU's Programme attempts to measure gains in the total person - knowledge, analytic ability, skills, values, cultural awareness, and other personal development - by measuring changes within the individual. The programme has evolved over a period of twelve years and affects nearly every managerial function at the university. This includes tactical, strategic, and long-range planning; student, faculty, and curriculum development; university funding and fiscal resource allocations; participative management; formal accreditation reviews; and the university's organisational culture and climate (McClain et al, 1990:33).

The NMSU claim is that its success is well-established when an expert such as Dr Alexander Astin has stated that he considers the longevity and proven record of the assessment programme to be one of the major factors that distinguishes NMSU from all the other universities in the USA.

NMSU's further claim is that its type of assessment leads to the attainment of quality in education and educational management and administration. Ultimately each institution of higher education must answer two questions:

1) What maximum contribution can the institution make to those individuals who are directly or indirectly affected by its functions? and

2) How effectively is the institution meeting its maximum potential? NMSU believes that its value-added programme brings it very close to the answers to these questions.

Attempts at implementing a programme for the promotion of the assessment of institutional effectiveness at the University of

Tennessee, Knoxville, have provided further evidence of successes in evaluating student outcomes (value-added) in the USA.

2.4.1.2 Comparative Value-Added as a Performance Indicator

Late in 1988, the Secretary of State in the UK, wrote to the Chairman of the Polytechnics and Colleges Funding Council (PCFC) setting out two key features which the Government expected. The second of these referred to a systematic method of monitoring institutional performance.

The PCFC responded by encouraging the use and development of performance indicators both at sectoral level and at the level of individual institutions.   Until recently, performance indicators have taken the form of descriptive statistics covering three main areas:

*   Input, or the quality and quantity of resources used by the institution
*   Process, or the various ways such resources are used, and
*   Output, or the quality and quantity of institutions' achievements (Gallagher, 1991:19).

As the PCFC (1990) pointed out at that time, such statistics only become performance indicators when they are linked to the planning process and the aims and objectives of the institution. Furthermore, performance indicators are just that.   They are statistics which, used sensibly, can indicate or signal possible strengths and weaknesses in an institution's performance.   They should never be interpreted as pure or absolute measures of performance.

The PCFC (1990) also indicated that performance indicators must be specific and standardised if they are to be used for making valid comparisons within or between institutions. This need for standardisation really requires a largely quantitative approach, in which some aspect of an institution's performance can be

assigned a numerical value, or at the very least a rank order. Such approaches have been developed and used for some years in student staff ratios, unit costs and degree results, but concern is frequently expressed at the uncritical use of these measures. The use of unit costs as indicators of efficiency has been researched by amongst others, Pratt and Worgan (1989) at the Polytechnic of East London. They suggest that comparison of institutions in terms of unit costs alone is a meaningless exercise unless supplemented by information on, amongst other things, student type, subject mix and changes in performance over time. However, these single indicators are often presented for public scrutiny in the form of league tables ranking institutions from "best" to "worst".

If performance indicators are to progress beyond this level they require development which includes more subtle elements of higher education, such as quality of the learning environment and of staff and teaching combined with students' perceptions of their experience in the institution. The Council for National Academic Awards (CNAA) has described six "clusters" of performance indicators which, taken together, could provide useful information for the purpose of quality assessment (Head, 1990).

2.5 The Quality of Academic/Teaching Staff

In order to achieve high levels of performance, institutions of HE must have the resources to recruit staff who are capable of achieving the highest levels of performance in any high-level professional activity. People who are going to be responsible for preparing future leaders must themselves have the knowledge and understanding that would enable them to perform well in industry, commerce, public administration, the professions and the arts. The non-pecuniary advantages of academic life, which compensate somewhat for inadequate salaries, would no doubt be reduced in a higher education system that is seriously under-financed.

2.6 Quality and Accountability

Issues of quality and accountability in higher education are closely related. Accountability involves rendering some form of account that an activity is being carried out effectively and efficiently. Those who are affected by it (eg the students) are entitled to demand that it be carried out effectively and those who provide the resources (mainly the taxpayer) have a right to ensure that they are used efficiently. However, higher education is not an easy activity to evaluate. Outputs and processes are many and complex. There is no simple relationship between inputs and outputs and·the process is subject to many random influences (Williams & Loder, 1990:1-2).

Apart from the perennial concern with finance, questions of "quality" and "accountability" will be some of the principle themes in the higher education debate during the 1990s. Issues such as accountability to students, meeting the needs of industry, commerce and other employers, maintaining academic standards, and financial accountability to the government and other funding bodies, will attract increasing attention as competition between institutions for students becomes more severe.

The debate about the nature of accountability and the form it should take is, therefore, wide-ranging. It is well-established that many academics, especially those from the universities, believe that their prime loyalty is to their academic discipline and that accountability to peers within the discipline ought to be their prime consideration. However, higher education institutions are certainly accountable to students and their families, to employers and to taxpayers who pay a substantial proportion of the money required. There is also social and political accountability which is concerned with issues such as ensuring that higher education is accessible to those who are likely to benefit from it. There is financial accountability which is about the efficient use of resources and there is quality accountability which is concerned with promise and

performance and the relationship between them (Williams & Loder, 1990:2-3).

The following "framework of accountability" illustrates some of the forces at work and attempts a reconciliation of these diverse viewpoints and factors:

DIAGRAM 2
FRAMEWORK OF ACCOUNTABILITY

ACCOUNTABILITY	
TENETS OF HE	**PUBLIC VIEWS/PERCEPTIONS**
1. AUTONOMY	1. DISTRUST DEVELOPING
(fundamental to academic institutions)	(based on the erosion of deference, financial
2. SELF-EVALUATION	constraints, and hunger for information)
(self-regulation is preferable to direct	2. PUBLIC DOMAIN
governmental control)	(public has a right to know what is happening to
3. STANDARDS AND QUALITY ARE SACRED TO HE	its money and its students)
(concessions are made to peer review, external	3. "PECKING ORDER" CREATED BY PUBLIC
examiners and professional accreditation)	(parents and legislators want assurances on
4. RESEARCH AND ACADEMIC FREEDOM	standards and quality from non-biased bodies eg
(reserve the right to research and write and	HEQC in the UK)
express thoughts freely and select students)	4. PUBLIC DEMAND FOR AUDITS AND DETAILS
	(questioning of use of time and facilities)

RECONCILIATION OF DIVERSE VIEWPOINTS

Reluctant acceptance of financial and other constraints by HE institutions. Information on HE becoming more freely available to the public.

SERTEC, SAFCERT and AUT (in the RSA) provide checks and balances and account for academic quality and questions relating to accreditation and validation.

Greater access to HE than ever before which results in other problems.

(Left margin vertical: ACCOUNTABILITY)
(Right margin vertical: ACCOUNTABILITY)

Source: This author (TC Shippey)

2.7 Towards a Definition of Quality

In examining the concept of quality it is interesting to contrast two statements on its nature from countries as far apart as Australia and Sweden, both of which express the complexity of this concept:

"The meaning of quality is unclear, and the term is variously used by different interests. Statements, some more precise than others, concerning the quality of education are made in various contexts, but systematic studies on the subject are few and far between. As a result, statements concerning quality are not always well-founded, whatever the sense in which the term is used" *(OECD, 1984:101)*.

"The 'quality of Australian education' depends on the selection of relevant elements, the assessment of the character ·of these elements and the weighting given to their relative importance. The assessment of quality is thus complex and value laden. There is no simple unidimensional measure of quality. In the same way as the definition of what constitutes high quality education is multidimensional, so there is no simple prescription of the ingredients necessary to achieve high quality education; many factors interact - students and their backgrounds; staff and their skills; schools and their structure and ethos; curricula; and societal expectations" *(Karmel Committee, 1985:3)*.

This analysis of the concept of quality is consistent with these views in that it eschews a single, tight definition of quality. Instead, an attempt is made to analyse the dimensions that enter different definitions and interpretations, whether of the notion of "quality" in general, or of its specific applications in the educational field.

2.8 Quality - the Word

"Quality" has a variety of meanings. It can be a descriptive rather than a normative term. It can simply refer to a "trait" or "attribute". Thus a student or lecturer, a university or university system, a regional or national education system, can have a *number of* qualities or defining characteristics.

"Quality" may also be used as a more aggregate or collective term. No longer simply a synonym for an attribute or characteristic, it refers in this sense to the "defining essence" of an entity. It is then more accurate to speak of "the quality" of whatever is being referred to, for example, a lecture room, university or system. Although one can categorise these meanings of the word as descriptive, they are not uncontentious since different observers and interests may identify as essential quite different defining characteristics. Even so, to talk, for instance, of a college's qualities in these senses need not imply value judgements.

The importance of the term "quality" in the educational context, including its political significance, increases substantially, however, when it is given a normative interpretation. Most dictionaries will include such definitions of the word as "degree of excellence" or "relative nature or kind or character". When quality means "degree of excellence", two aspects are encompassed: that of judgements or worth and that of position on an implied scale of good or bad. To judge the quality of a university, for instance, as "poor", "mediocre", or "excellent" means both applying, whether roughly or precisely, a certain notion of merit, and identifying, again more or less approximately, where that university is positioned relative to other universities.

To make matters still more complicated, "qualitative judgements" as described above are rarely made without a concern to effect "improvements", at least when the result of an assessment has proved less than satisfactory. How best to realise improvements, especially when conflicts and trade-offs are involved, is just as much an area of potential controversy as the initial assessment. To give one example, disagreement in the USA is just as palpable concerning what should be done, if anything, in response to the long-term decline in Scholastic Aptitude Test (SAT) scores, as it is concerning the facts of the decline itself.

The shades of meaning of the word are not yet exhausted. "Quality" may implicitly denote the "good" or the "excellent" as in phrases such as "the quality teacher" or "the quality school". Although it is difficult and even misleading to separate rigidly the qualitative and quantitative, in normal parlance "quality" may also be used in contradistinction to "quantity". Qualitative assessments are, in this sense, those which are made intuitively, because the nature and complexity of the phenomenon observed defy segmentation into measurable parts. Judgements of this kind are made daily in education many times in many settings: "As a parent, I can just go into a school and get a feel for the place and I can tell whether it's any good or not"; "Everyone in the school just knows who are the good teachers and who are the bad ones". School inspection or teacher appraisal will often entail precisely these kinds of qualitative judgements. Although not everyone will agree with them and, although sometimes hasty or ill-informed, they are the stuff of the creative, human enterprise of schooling.

In the light of the abovementioned views it seems appropriate to refer to a summary which appears in Schools and Quality: An International Report which was produced by the Organisation for Economic Co-operation and Development (OECD) in 1989:

> *"The very term 'quality' is thus multifaceted, and often subjective.   Four different uses of the word can be identified:*
>
> - *Attributes (specific) or*
>   *defining essence (collective)*   *descriptive*
> - *Degree of excellence or*
>   *relative worth*   *normative*
> - *The good or excellent*   *normative*
> - *Non-quantified traits*
>   *or judgements*   *descriptive*
>   *or normative*
>   *(containing ele-*
>   *ments of the*
>   *above) (OECD, 1989:28).*

Given these dimensions of the word, it is hardly surprising that assertions about quality in education are often controversial. Individuals and interest groups can and do differ substantially over what they judge, in general, to be good or bad. Because education has become increasingly politicised over recent years and because a broad national consensus on goals is often no longer the rule, it is understandable why the concern for quality in education has come to the fore and also why its resolution is so problematic. Individuals and interest groups may still be at odds in their assessment of where a particular practice or situation comes on the notional scale of good and bad, even assuming broad agreement on what in general constitutes better or worse. Judgements may be made on the most specific entities, eg the student, the lecture theatre, or practical application of a pedagogical technique, through to the most aggregate appraisal, such as a national education system. And attitudes to the measurement of "quality" are no less varied.

2.9 A Management and Industrial Approach

According to Malcolm Frazer of the now defunct CNAA, the 1990s may well become known as "the decade of quality", in the same way that efficiency was a major theme during the 1980s. In industry, in commerce, in government circles and now in higher education the word "quality" is on everyone's lips: "quality control", "quality circles", "total quality management", "quality assurance", and so on. The maintenance and enhancement of quality, and attempts to define and measure quality, are now major issues for higher education in many countries (Frazer, 1991:1).

At least three major questions arise. Why is there a concern for quality? What is meant by quality? How can quality be assured? Answers to these questions will be provided as the analysis of this concept unfolds.

A major item which needs clarification before quality can be more specifically addressed is nomenclature. As Mayhew, Ford and

Hubbard (1990) suggest in a recent publication, every educational institution insists that its primary commitment is to "quality" and "excellence", terms that are often used interchangeably. These authors also state that the advent of many types of institutions at post-secondary level which are clearly not able to perform the functions of a traditional university, leads to two distinct categories. The one is higher education and a variety of post-secondary educational services comprise the other.

They suggest that these two entities are in no way equivalent and do not use the same criteria for defining quality (Mayhew, Ford & Hubbard, 1990:23-25). The one point of agreement amongst all writers is that quality is an elusive concept.

While quality as a concept shares certain abstract dimensions whenever it is discussed, it lends itself to so many different perspectives that meaningful dialogue is impossible unless the participants agree on a common approach. In Managing Quality David Garvin (1988:39-46), quotes from various authors in order to illustrate at least five different approaches to defining quality that are used frequently in industrial and commercial settings: the transcendent, product-based, user-based, manufacturing-based, and value-based. Garvin presents representative examples of each approach:

"I. Transcendent":

According to the transcendent view, quality is synonymous with "innate excellence". It is both absolute and universally recognisable, a mark of uncompromising standards and high achievement. An implicit assumption of this view is that there is something timeless and enduring about works of high quality, an essence that rises above changes in tastes or styles. Occasionally this approach equates quality with fine craftsmanship and a rejection of mass production. But more often it claims that quality cannot be defined precisely, that it is a simple, unanalysable property which we learn to recognise only

through experience. Quality remains maddeningly elusive (Garvin, 1988:41-42).

"II. Product-based:

Differences in quality amount to differences in the quantity of some desired ingredient or attribute" (Abbott, 1955:126-127).

Product-based definitions are quite different: they view quality as a precise and measurable variable. Differences in quality thus reflect differences in the quantity of some ingredient or attribute possessed by a product. High quality ice cream has a high butterfat content, just as fine rugs have a large number of knots per square inch. This approach lends a vertical or hierarchical dimension to quality, for goods can be ranked according to the amount of the desired attribute they possess.

There are two obvious corollaries to this approach. First, higher quality can be obtained only at higher cost. Because quality reflects the quantity of attributes that a product contains, higher-quality goods will be more expensive. Second, quality is viewed as an inherent characteristic of goods rather than as something ascribed to them. Because quality reflects the presence or absence of measurable product attributes, it can be assessed objectively and is based on more than preferences alone. (Garvin, 1988:42-43).

"III. User-based:

Quality consists of the capacity to satisfy wants" (Edwards, 1968:37).

"In the final analysis of the marketplace, the quality of a product depends on how well it fits patterns of consumer preference" (Kuehn & Day, 1962:101).

User-based definitions start from the premise that quality "lies in the eye of the beholder". Individual consumers are assumed to have different wants or needs, and the goods that best satisfy their preferences are the ones they regard as having the best quality.

A basic problem with the user-based approach is its equation of quality with maximum satisfaction. While the two are related they are by no means identical. A product that maximises satisfaction is certainly preferable to one that meets fewer needs, but is it necessarily "better" as well? For example, books on "best seller" lists are clearly preferred by a majority of readers, even though few would argue that they represent the finest literature available. Similarly, consumers may enjoy a particular brand because of its unusual taste or features but may still regard some other brand as being of higher quality (Garvin, 1988:43-44).

"IV Manufacturing-based:

Quality [means] conformance to requirements" (Crosby, 1979:15).

"Quality is the degree to which a specific product conforms to a design or specification" (Gilmore, 1974:16).

Manufacturing-based definitions focus on the supply side and are primarily concerned with engineering and manufacturing practices. Virtually all definitions of this approach identify quality as "conformance to requirements". Once a design or a specification has been established, any deviation implies a reduction in quality. Excellence is equated with meeting specifications and with "making it right the first time". In these terms a well-made Mercedes Benz is a high-quality motor car, as is a well-made Chevette. The same approach is relevant to service businesses, where conformance normally means accuracy or timeliness (eg airlines that arrive and depart on time).

According to this approach improvements in quality (which are equivalent to reductions in the number of deviations) lead to lower costs, for preventing defects is considered less expensive than repairing or reworking them (Garvin, 1988:44-45).

"V. Value-based:

Quality is the degree of excellence at an acceptable price and the control of variability at an acceptable cost" (Broh, 1982:3).

"Quality means best for certain customer conditions. These conditions are (a) the actual use and (b) the selling price of the product" (Feigenbaum, 1961:1).

Value-based definitions define quality in terms of costs and prices. Thus, a quality product is one that provides performance or conformance at an acceptable price or cost. By this reasoning, an R800 running shoe, no matter how well constructed, could not be a quality product, for there would be few buyers.

Despite its obvious importance, this approach is difficult to apply in practice. It blends two related but distinct concepts: excellence and worth. The result is a hybrid - "affordable excellence" - that lacks well-defined limits and is often highly subjective (Garvin, 1988:45-46).

2.9.1 Application in an Educational Context

All these approaches have, at one time or another, been applied to education. The first of the five approaches outlined by Garvin, the "transcendent" approach, mirrors most closely the historic view of quality education. Barbara Tuchman defined it thus:

"Quality is achieving or reaching for the highest standard as against being satisfied with the sloppy or fraudulent" (Tuchman, 1980:38).

While this definition focuses on rigor, is challenging, and historically has enjoyed the widest use among educators, it provides little help for those charged with the task of improving higher education.

The "product-based" approach suggests that those who insist that the relative quality of an institution may be judged by its students' performance on nationally standardised tests seem to be working from such a product-based approach.

On the other hand, egalitarian reformers work from a different approach, which assumes a "user-based" definition. From this perspective, quality can be equated with consumer preferences. In the words of the well-known industrial, quality expert J.W. Juran (1974:22), "Quality is fitness for use". Such an approach would appeal to those students who judge their education only in terms of how well it facilitates the securing of a job, and to those adult part-time learners who only select courses which appear to be applicable to their current job.

The fourth definition, namely, "manufacturing-based", was popularised by Crosby, (1979:15) when he defined quality as "conformance to requirements". He illustrated the utility of his approach by noting that it allows for both high-quality and poor-quality Rolls-Royces and Ford Escorts. Once set requirements are met, the product has quality. Competency-based and criterion-referenced approaches to education reflect this view.

The fifth definition, termed "value-based", implicitly acknowledges that standards in education must at times be compromised because of lack of resources. Legislators who have to decide on the distribution of scarce resources often fall back on this definition.

2.9.2 Summary

Any attempt at defining quality would be incomplete without W. Edwards Deming's definition (1986):

"... quality is the reduction of variance".

Deming, who is often attributed with Japan's revival in manufacturing in the 1950s and 1960s, used statistical methods for identifying and reducing variance in manufacturing processes.

The meaning of quality will vary in different settings. When evaluating a manufactured product one must decide what significance to assign to variables such as performance, features, reliability, durability, serviceability, and/or aesthetics.

Purchasing a set of bone china or a motor-car will result in a different set of criteria from that of choosing a washing machine. However, if one is evaluating a service, the assessment of quality will most likely be shaped by the knowledge, skill, attitude, appearance, and timeliness of the providers as they react to the needs and expectations of the receiver of the service.

Mayhew, Ford and Hubbard sum up some of the ideas which have been reviewed in this way:

> *"From all these considerations, certain generalisations applicable to education emerge. First, quality is a receding horizon. There are no static acceptable norms of performance. Second, in spite of theoretical considerations, if quality is to be improved, it must be defined with enough specificity so that its attributes are at least suggested, if not clearly delineated. Third, quality improvement is inexorably bound up with assessment and feedback"* (Mayhew, Ford, & Hubbard, 1990:27).

REVIEW OF CHAPTER TWO

What this chapter has essentially attempted to do is to acquaint the reader with some of the prevailing views on the concepts

relating to quality and standards in higher education and illustrate their more general application.

Such a broad, philosophical base is necessary since these terms appear frequently throughout this study. A logical sequence emerges which starts with a general descriptive analysis and then moves in later chapters to more specific evaluations and examples and eventually to a number of models in the final chapter.

This chapter provides a link and a foundation for the ensuing chapters. The underlying theme throughout remains that of borrowing and · adapting for higher education the proven quality-generating strategies and principles developed by industry and commerce.

The following chapter undertakes the task of analysing total quality management and strategic quality management in order to establish the significance for higher education of such specific applications of the general principles stated above.

CHAPTER THREE

TOTAL QUALITY MANAGEMENT - ITS ORIGINS AND PRINCIPLES

FOREWORD

The terms "total quality management" (TQM) and "strategic quality management" (SQM) and others which are synonymous with them, are used daily throughout the world and therefore need explaining and qualifying. That is the prime purpose of this chapter.

The explanatory notes on the development of TQM and the meaning of SQM in industry provide an appropriate launching platform for the application of these concepts in higher education.

What is illustrated here is how deep-rooted much of the TQM philosophy has become in industry and the principles involved are briefly enunciated in this chapter. The frustrations and concerns of TQM practitioners are also analysed and thus they provide appropriate warnings for over-zealous protagonists of the various quality control mechanisms and procedures.

The notes provided on TQM and SQM are an essential "support system" for later chapters since this study leads inexorably towards the situation in the Republic of South Africa and the creation of models for higher education which are derived from such basic ingredients.

1. QUALIFYING REMARKS

This study of standards and quality dares to ask the most perplexing and difficult of all questions in education, namely: How do we define standards and quality and who should determine these definitions and apply them? These questions require intense analysis and debate. They are controversial and disquieting and much ruffling of feathers occurs when such issues are closely examined. Such questions are not merely philosophical issues for endless debate in academic corridors or in the halls

of power - these are fundamental issues calling for resolution and action and not mere discussion.

Technikons, colleges and universities are complex organisations. They have many characteristics which make them look like any other business but they also have a broad array of "customers". Given the complex nature of such higher education institutions, it is not unusual to conclude that a reluctance to take action abounds on most campuses. Faced with strident calls for more accountability and increased productivity, the response on the majority of campuses has been to use time-worn cost containment and policy options. Many campus administrators have become accomplished in crisis management - dealing only with the most pressing problems. How many more subsidy cuts, retrenchments, early retirements or hiring freezes do campus leaders have to endure before they ask the question: Is there a better way to manage higher education? (Seymour, 1992:vii-viii).

The concern of this study is not with past solutions but with radical change - the kind that requires the infusion of new ideas and the removal of conventional procedures. The concerns and methods of the past cannot begin to handle the demands placed on our institutions of higher education in an emerging global economy. Educating people for the year 2000 is fundamentally different from educating them for the 1970s. Our educational institutions must change just as much as technology, lifestyles and culture have changed. For this reason some of the basic assumptions of higher education administration will have to be challenged.

What emerges in this project, after the initial examination of what quality/standards/excellence really are, is a shift in the direction of a management style with its roots in industry and commerce, which can nonetheless be successfully adapted to the higher education mode.

The philosophy of Total Quality Management (TQM), which was initially developed in the United States, helped transform

Japanese industry into the economic powerhouse which it is today. TQM continues to grow and evolve in many parts of the world as organisational researchers explore its effects, as firms refine its procedures, and as service industries, such as hospitals, hotels and higher education adapt its principles to meet their needs.

Although TQM has made a difference in organisations around the world it is not a magic formula which is able to turn a poorly run, non-competitive organisation into one that operates with great efficiency and effectiveness. However, the philosophy and the tools of TQM cannot be dismissed as yet another management fad. TQM is too well-grounded in a scientific approach to problem-solving, and it has been tested, scrutinised and revised in thousands of organisations over a period of four decades. There is ample proof that it works when applied rationally and persistently.

After having examined the questions relating to standards and quality on many campuses in the USA, UK, Canada and the RSA, and after having read much of the available literature on the topic, this author concludes that quality can be actively and aggressively "managed" into our higher education systems. It became clear during this analysis of quality that although quality management is being practised on many campuses, its occurrence is almost by chance. On some campuses there is an inspired leader with a distinctive vision, while on others a small group of the academic/teaching staff are spending time asking the tough questions: "What are we trying to accomplish?" "How can we measure the effects we are having?" "Is there a way of improving quality and what we are doing?" However, what most institutions are lacking is a comprehensive or systematic approach to quality. That is where the philosophy and tools of quality management can be used since they can provide a better way of managing higher education.

In this quest in academe for ways of managing quality it soon became apparent that the essential element is the difficulty of

implementation. In many cases the TQM approach struggled, not because of a fatal flaw in logic but because of a lack of attention to integration and institutionalisation. In implementing such a "thought revolution" which challenges the status quo, there are always individuals who remain faithful to the old regime. There will always be those who resist change. Therefore the creation of a culture is vital in which the pursuit of quality becomes standard procedure and in so doing it is clear that both patience and persistence will be needed.

Another concern in this quest for quality, which warrants careful noting, relates to HE's inability, or unwillingness, to communicate its quality efforts to its various publics. If quality is really an organisational goal then HE institutions need to articulate how well they are doing. They need to be able to indicate how TQM can help move quality measures from ill-defined notions in recruiting brochures to sharply defined activities that can shape the perceptions of their constituencies.

During the second half of the 1980s, the latest (or fourth era) in the quality movement emerged. Strategic quality management, as described by Garvin (1988), acknowledges the role of statistical analysis and other quality control and quality assurance advances. For the first time quality was perceived to be a leadership function that could be "managed in" to the daily affairs of an organisation. Other departures from the earlier quality concepts began to emerge. Quality was being included in the strategic planning process and in financial planning - linking it directly to profitability. The definition of quality also underwent a transformation from an emphasis on fixed, internal standards to consideration of quality from the customer's point of view. It was now perceived that quality could be a powerful competitive weapon.

2. TOTAL QUALITY MANAGEMENT - APPLICATION TO INDUSTRY AND COMMERCE

It has taken a long time for the concept of total quality

management to develop in the United States, although that is where it began, and in many other sophisticated societies.

Its historical roots can be traced at least as far as the 1900s and to Walter A. Shewhart. Shewhart was a physicist with Bell Telephone Laboratories. He determined that in any work process there would be natural variation. He reached the conclusion that it would be desirable and possible to set limits on the natural variation of any process, so that fluctuations within these limits could be explained by chance causes, but any variation outside these limits would indicate a change in the underlying process. He published his conclusions in the book: The Economic Control of Quality of Manufactured Product (1931) (Kinlaw, 1992:vii).

It took almost fifty years for Shewhart's work to be generally accepted and applied in the United States. As many writers have stated, his work made a circuitous and costly detour (at least for the United States) via Japan.

In 1947, Kenichi Koyanagi formed the Japanese Union of Scientists and Engineers. Through this Union, W. Edwards Deming, an American disciple of Shewhart, was invited to Japan to present a series of lectures to the leaders of Japanese industry on the statistical approach to managing quality. Deming was followed by Joseph M. Juran, who presented seminars in Japan on the system of total quality management in organisations. Within the incredibly short span of ten years, Japan was setting the standards of quality in the manufacture of steel and in the production of motor cars and electronics.

The work of Shewhart was eventually reintroduced to the USA (via Japan and through the efforts of Deming) for general use in 1981. In that year Deming appeared on a documentary television programme entitled: "If Japan Can, Why Can't We?" The outcome was that major organisations such as Ford and General Motors asked him to present seminars to company executives on the management of total quality (Kinlaw, 1992:vii-viii).

Thus it has come about, through the work of Deming and his converts, Joseph M. Juran, Kaoru Ishikawa, Philip B. Crosby, and Armand V. Feigenbaum, that the spotlight has been placed on quality in most companies and that TQM has become so pervasive throughout the USA and further afield. Ask almost anyone in industry today and they either have or are planning to implement TQM or another quality programme. A recent survey by GOAL/QPC of Massachusetts found that about 50 percent of the "1000" Business Week top companies had initiated some form of quality improvement. As each major company implements TQM, it requires its "vendors" to implement a similar programme: hence the movement is growing prolifically (GOAL/QPC, 1990:10).

2.1   The So-Called Quality Gurus

When W. Edwards Deming first pioneered the revival of quality improvement he stated quite simply:

> *"Improve quality and you automatically improve productivity. You capture the market with lower prices and better quality. You stay in business and you produce jobs. It's so simple" (Deming, 1986:31)*

As has been stated, Juran, the second "quality guru" arrived in Japan a few years after Deming and built an equally impressive record around quality planning, quality control, and quality improvement. Crosby became the third so-called "quality guru" in 1979 and it is apparent that the basic message of all three is similar:

* Commit to quality improvement throughout your organisation

* Attack the processes, not the employees

* Strip down the process to find and eliminate problems that diminish quality

* Identify your customers and satisfy their requirements

* Instil teamwork and create an atmosphere for innovation and permanent quality improvement (FVTC, 1991:46).

2.2 Motivating Forces in TQM

The major underlying reason for the growth of the quality movement in industry in the USA and Europe has been survival. Lost sales and declining profits have forced companies to try anything - even TQM - in order to survive. Belt tightening is now the rule in all sectors and states/provinces, cities and higher education institutions. All hear the same cry: "Do more with less". They are asked to maintain or even increase productivity in spite of staff and budget cuts.

One of the answers to coping with such pressure may lie in the TQM movement since Deming and Juran both claim that by applying TQM one can save up to 30 percent, and this claim has been validated by TQM users in industry.

In the USA, for example, several attempts have been made to adapt TQM to the public sector. Two attempts, which have been well-documented are Florida Power and Light Company and the city of Madison, Wisconsin. Several hospitals and states are also implementing TQM. However, comparatively few attempts are underway in the education sector (Coate, 1990:2-3).

2.3 TQM: A Process of Social Change

Since TQM was developed and refined for implementation in the business and industrial sectors, it is logical to analyse briefly its significance within that environment. TQM's adaptation to higher education can then follow as a further extension of those principles which have been tested and proven in the corporate world.

In the highly competitive 1990s, more organisations are using total quality management. Senior executives considering companywide quality initiatives express their need to understand clearly what TQM is and how to implement it. Success in TQM is predicated on understanding, positioning and managing TQM as large-scale organisational change that involves fundamental dimensions of corporate culture (Heilpern & Nadler, 1992:137).

In order to better understand TQM one could focus on four topics:

*   Why quality?
*   What is quality?
*   TQM and organisational change
*   Implementation of TQM

2.3.1 Why Quality?

In the 1950s and 1960s in the United States, monopolies existed in many markets, which severely limited choices for customers. For example, someone wanting to buy a car in the 1950s could choose only from a small number of models with a limited range of features and similar levels of, or lack of, quality. Increasingly, new competitors have appeared in almost all categories of products and services. Indeed, the increasing globalisation of business enterprises has reduced barriers to entry and opened up borders dramatically. As a result, customer expectations have been raised and new requirements established. Customers first appreciate and then take for granted the wide range of options. Through this process, customers realise that they have real choices, and once that occurs there is no going back to the days of the seller's market.

For suppliers this power shift is profound. To continue to be successful in terms of market share and retention, quality becomes a core competitive issue. Without the protection of limited competition and modest customer expectations, quality attributes become the key differentiator in the marketplace. In many highly competitive industries today, quality is not merely

a competitive issue; it is a matter of survival. Where competition is intense, companies without quality products and services that attract and satisfy customers cannot remain viable for long (Heilpern & Nadler, 1992:138).

2.3.2 What is Quality?

As organisations throughout the world have seriously begun to focus on quality, a common definition has emerged that reflects the leverage which customers now have. "Quality" is defined as an offering (product or service) that meets or exceeds customer requirements. Although there are many technical definitions of quality, the focus on meeting or exceeding customer requirements provides an easily understood and powerful message.

Building on this definition, "quality management" can be defined as developing and operating work processes that are capable of consistently designing, producing and delivering quality offerings. Central to this definition is the focus on process (versus functional) management as a primary means of continuous improvement. Further expanding the frame of reference, "total quality management" can be defined as creating and implementing organisational architectures that motivate, support and enable quality management in all activities of the enterprise. In sum then "total" indicates that the entire organisation and all of its functions are included; "quality" indicates that the product or service meets or exceeds customer requirements; "management" indicates that the core work processes are in control and capable, and that quality is fully integrated into the management process (Heilpern & Nadler, 1992:138-139).

2.3.2.1 What Quality is Not

Although TQM is quite comprehensive in its perspective, activities and benefits, it is important to acknowledge what quality is and what it is not. Many view TQM as a panacea for all organisational ills. It is not the single answer to all questions. In fact, such a viewpoint is not only incorrect but

it is dangerous. Quality improvement with increased management
by fact is very important; however, it is not a substitute for
knowledge, experience, and courage. Nor is it a substitute for
good strategic decision-making and effective corporate and
business strategies.

Quality management is also not a substitute for effective
organisational design. Quality improvement in itself will not
eliminate outmoded or inappropriate structural arrangements that
create internal focus and competition rather than coordinated and
synergistic focus on customers.

Finally, quality is not a substitute for selecting the right
people. Although one would like to believe that everyone can
change and adopt new attitudes and work practices, it turns out
that some people either cannot or will not change. This reality
needs to be recognised and dealt with, not wished away by false
optimism.

2.3.3 TQM and Organisational Change

An understanding of TQM as a large-scale organisational change
is necessary for its successful implementation.

TQM is a fundamental change in how an organisation functions.
It has an impact on almost everything that goes on in the
organisation. If we are to understand TQM as organisational
change then we need some basis for thinking about organisations
and how they function and behave. One could, for example, use
a model of organisational behaviour and performance based on open
systems theory. Such a framework views organisations as systems
that transform input into output. Specifically, an organisation
is a mechanism designed and created to take strategy and turn it
into a pattern of activity and performance.

Moving towards TQM therefore requires the design and
implementation of an entire set of changes which affect virtually
all components of an organisation (Heilpern & Nadler, 1992:142-
143).

2.3.4 Management of the Implementation of TQM

In progressing towards the desired future state of TQM it is necessary to acknowledge the need for transition strategies. The most important of these are indicated in the cause-and-effect diagram presented below. The eight elements on the ribs of the fish bone are critical success factors bringing about the desired effect, which is the transition to total quality management (see Appendix 1 for further detail).

DIAGRAM 3

CAUSE-AND-EFFECT DIAGRAM
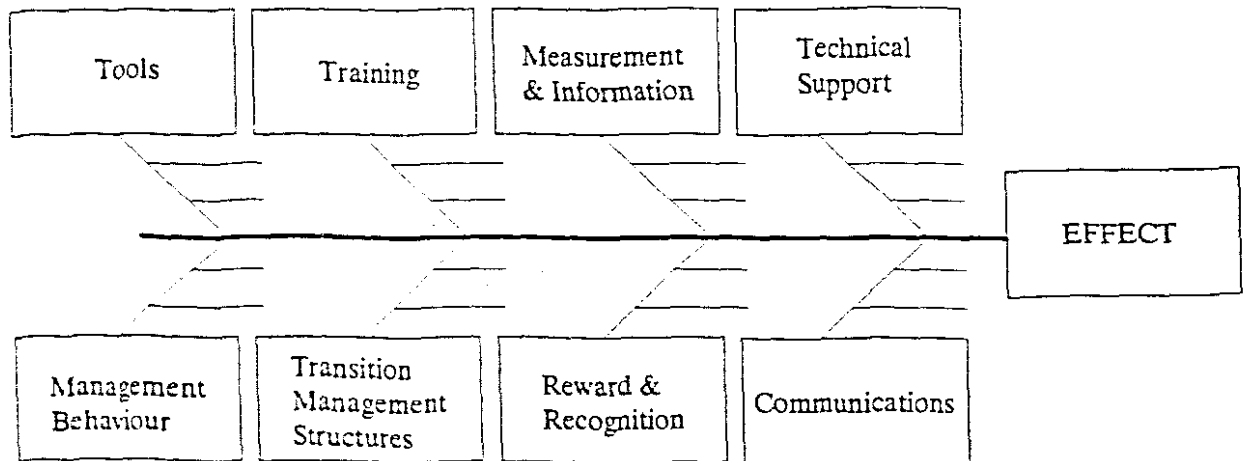
Source: This author (TC Shippey)

It is very clear that TQM cuts much deeper than the formal tools, work processes, and organisational arrangements involved in its pursuit. The basic mind-set, attitudes, and values of the organisation are involved. Unless these less tangible aspects are tapped, progress will be impeded (Kinlaw, 1992:44-45).

In most cases the transition to TQM will take at least five to seven years and one may ask why it is such a lengthy process. The main reason is the challenge of changing organisational culture. The problems and frustrations of modifying corporate culture involve the issue of basic assumptions about quality and whether or not a company is initially "quality friendly" or "quality hostile".

2.3.5 Summary

As we move towards the next century in our rapidly changing global village,.quality has become a very powerful competitive tool. It is, possibly, a matter of survival for an increasing number of companies in almost every industry.

In the words of Heilpern and Nadler:

> *"Total quality management, the multifaceted pursuit of quality in all functions, activities, and parts of an enterprise, is a large-scale and profound organisational change. It requires significant investments of time and effort, particularly by senior management. It should not be undertaken without a clear understanding of the complexity of the journey and the continuing commitment required" (Heilpern & Nadler, 1992:154).*

3. IMPLEMENTING TQM

How a process is implemented in TQM is just as important as what the process includes. Many organisations still function according to the remnants of a departmentalised "Taylor" approach in which some employees plan improvements, others carry them out, and still others inspect to see if procedures and results are correct. However, in TQM, all employees commit every day to improving the quality of their service so that customer's needs are not only met but exceeded.

In the growing TQM literature many techniques, prescriptions, admonitions, and anecdotes have been published. However, little attention has been paid to how firms have implemented TQM, the hurdles they have encountered, and how they responded and adapted TQM principles to their existing cultures.

A non-profit TQM research company in Massachusetts called GOAL/QPC found that six implementation models are currently being used:

* The TQM Element Approach - this approach, used in the early 1980s, uses elements of quality improvement programmes such as Quality Circles, Statistical Process Control, Quality Functional Deployment, and so on, rather than fully implementing TQM.

* The Guru Approach - this approach uses the writings of a guru such as Deming, Juran or Crosby, as a benchmark in order to determine what the organisation lacks, then uses the guru's systems to make changes. Use of Deming's 14-point model (see Appendix 2) is an example.

* The Japanese Model Approach - organisations use this method (focused on a study of the Japanese "Deming Prize Winners") as a means of developing an implementation master plan. This approach was used by Florida Power and Light Company.

* The Industrial Company Model Approach - in this approach people visit a US industrial company using TQM, identify its successes, and integrate this information with their own ideas in order to create a customised approach. This method was used in the late 1980s by many of the Baldrige National Quality Award winners.

* The Hoshin Planning Approach - this approach,

developed by a Japanese firm, Bridgestone, was used successfully by Hewlett-Packard. It focuses on successful planning, deployment, execution, and monthly diagnosis.

* The Baldrige Award Criteria Approach - in this model, an organisation uses criteria for the Malcolm Baldrige National Quality Award in order to identify areas of improvement. The criteria cover seven key components of TQM. By the early 1990s this approach was being used by hundreds of industrial companies (GOAL/QPC, 1990:12).

In sum then, TQM is a commitment to excellence by everyone in an organisation - excellence achieved by team-work and a process of continuous improvement. TQM means dedication to being the best, to delivering high quality services which meet or exceed the expectations of the customers.

As with any significant cultural change, TQM requires strong leadership at all levels. Inspiring people to do things differently takes leaders who can communicate what needs to be done and why. It takes leaders who have a clear goal or vision, who can impart that vision to others, and then demonstrate through action how to make that vision a reality.

Most of all, TQM requires leadership that empowers people to work towards achieving their shared vision. No single company or organisation (eg a college, technikon or university) has successfully implemented and maintained progress in the concepts of TQM without that leadership by top management (Deming, 1986:Chapter Two).

4. STRATEGIC QUALITY MANAGEMENT (SQM)

Strategic quality management (a subset of TQM), or any of the titles or acronyms such as TQC (Total Quality Control), QIP (Quality Improvement Programme), or TQM which have been used to

describe the principles which have evolved from Shewhart's early work on statistical quality control, is an integrative concept. Although there are some differences among the leading advocates, namely, Deming, Juran and Crosby, there is more agreement among them than disagreement and a strong set of well-defined principles underlies their work.

An analysis of these general philosophical principles revolves around the following concepts:

* Quality is meeting or exceeding customer needs

    The "quality philosophy" follows a simple rule. The first priority of an enterprise and everyone in it must be knowing and satisfying the customer. This is common sense for in a competitive society, if you don't satisfy the customer, someone else will. The Japanese car makers in the USA seem to understand clearly, judging by their dominance of the car market, that it is the customer who defines quality - not the design engineer or business executive. Quality is also understanding who your customers are inside the organisation (Kinlaw, 1992:26-31).

* Quality is everyone's job

    An organisation needs to be "saturated" with people, from the MD down to the cleaners of offices, who all speak of quality in terms of their own particular functions. Quality is therefore an organisational goal and cannot be assigned to a specific person or area. Quality is everyone and everything within an organisation (Garvin, 1988:13).

* Quality is continuous improvement

    Quality is a continuous struggle since there is always a better way, a simpler approach, a more acceptable solution. The challenge is to develop an

organisational culture in which people accept the notion that change or striving must be constant. One can _always_ improve the quality of any product or any service.

*   Quality is leadership

There is no substitute for leadership when it comes to quality. The leadership must build a strong consensus regarding quality and reinforce that consensus regularly. The thoughts and actions of an organisation must be pointed in the same direction in a form of synergy or alignment - and this task must be undertaken by the leaders - it cannot be assigned or assumed by someone else (Seymour, 1992:15).

*   Quality is human resource development

No matter how limited their natural resources may be, all countries have people and strategic quality management regards the employees in an organisation as its best resource and its best investment. We have to invest in the human capital of an organisation since such investment empowers the people who can realise a quality philosophy. It must become part of the management function to assist people to perform their tasks more effectively.

*   Quality is in the system

When things go wrong in systems then quality is reduced - this is obvious because outcomes are poorer. According to researchers about 85 percent of such quality-reducing problems are caused by so-called common variation, and the remainder by special variation. In other words the vast majority of problems are not assignable to a specific person or event. Instead, the system that converts input into

outcome is flawed. The common cause of variation is therefore system problems, and management traditionally controls the system. In order to achieve greater quality it seems logical to invite the people who work in the system to join with management and work together on the system.

* Quality is fear reduction
In most organisations the policy seems to be one of "Management by fear". However, at the very heart of SQM is the procedure of locating shortcomings or defects, examining them, tracing the sources of the problem, and making corrections. In a "management by fear" environment people are afraid to point out problems for fear that they will start an argument or even be blamed for causing the problems. It seems clear that a quality movement can only succeed with the full participation of its workers and the creation of fearless management, not management by fear.

* Quality is recognition and reward

Recognition, gratitude and celebration are powerful concepts that need to be used by management to reinforce the principles of strategic quality management. One of the most effective means of recognition is to act on people's good ideas and once they see them being implemented they become enthusiastic.

* Quality is teamwork

If we are going to continuously improve the quality of a process we have to involve everyone. This also includes the need to organise employees into teams which work both in and on these processes. This also means building cross-functional relationships and the giving up by management of the power to control people

and working more as a facilitator and a coach. It also implies having teams of people who are free to suggest new ways of simplifying systems and preventing problems.

* Quality is measurement

One cannot easily improve a system or process unless you have tangible evidence of the measure of your success. It is also important to ensure that such measurement of success must be institutionalised into a management information system. Continuous quality improvement requires a continuous flow of data and such measurement data supply works best when the people involved contribute toward deciding what should be measured. *Measurement within the context of strategic quality management is the data needed for improvement - it is the basis for a knowledge-driven organisation* (Heilpern & Nadler, 1992:139).

* Quality is systematic problem-solving

When faced with a series of problems, the tendency is to approach the easiest problem first by opting for the most obvious solution and by doing so the root cause of a problem is never addressed. Strategic quality management requires a proactive approach to problem solving that can be learned and applied to process improvement. Perhaps the most basic approach involves a simple plan-do-check-act cycle.

Most colleges and universities throughout the world find themselves in a difficult position financially as the twentieth century draws to a close. For this reason the way in which higher education conducts its business is being questioned. In a speech given in 1990 in West Virginia, John A. White, the Assistant Director of the National Science Foundation in the USA, addressed the following questions to an audience of educators:

"How long would a firm be in business if it rejected parts, materials, and subassemblies at an overall rate of 35 percent and rejected a critical component at a rate of 65 percent? How long would a firm be in business if it consistently failed to meet its advertised delivery dates by 25 percent?" (White, 1990:47)

Such questions lead us inevitably to questioning whether there is a better way of managing our higher education institutions? Although the roots of strategic quality management come from industry it should be clear that these basic principles are not restricted to industry but could be used to run any organisation, including a college or university. Since this approach is based on the ability of individuals to improve and on a close knowledge of the "customer" (student, employer, etc.) it is readily adaptable to higher education too.

REVIEW OF CHAPTER THREE

Since the following chapter examines the application of TQM in higher education, it is appropriate to precede such an examination by definitive and explanatory notes on the principles involved.

In examining the views of the TQM "gurus" one is led into the underlying philosophy and concerns and the application of those views in the business sector. It soon becomes evident that those principles are adaptable to the needs of higher education and that benefits can be derived from their use.

The analysis of the tenets of SQM provides some valuable points for the development of a model and illustrates just how important such ideas can be when creating a future framework for higher education in the Republic of South Africa.

The link with Chapter Four is clear and serves to establish the relationship between higher educational institutions and industry and commerce and the inevitable value of such liaisons.

CHAPTER FOUR

HIGHER EDUCATION AND TOTAL QUALITY MANAGEMENT

FOREWORD

After having examined the meaning and significance of TQM in the preceding chapter it is logical to progress to the application of this concept in higher education.

One of the main pillars upon which this study rests is that of analysing the applicability of TQM and other quality-promoting measures to institutions of higher education. For this reason this chapter is of fundamental importance to the model which will eventuate in the final chapters.

The rationale behind the undertaking of this examination of standards and quality, emanated partly from the assumption that TQM applications in industry offer much of value to the educational community, and partly from the concern over standards considering the expected influx of vast numbers of students during the next decade. For this reason the reference to Oregon State University's attempts at utilising TQM principles sets the scene for possible adaptation to a South African model, as does the reference to TQM in HE in the UK and at Fox Valley Technical College in Wisconsin, USA.

1. SETTING THE SCENE

Higher education has always sought ways of improving itself. No one in higher education would admit not wanting to maintain the current quality of programmes and services - not because the quality is poor or mediocre but because it is a sine qua non that it is essential to be striving always to achieve "excellence".

This explains why educators constantly seek ways to manage their institutions better. But why should they choose TQM? Put simply, the complex and difficult problems facing higher

education in the nineties demand an entirely new approach to problem-solving. Certain campuses have chosen TQM as their new problem-solving paradigm (an example or model of how things should be done) in the search for quality because they believe that it best addresses some of the main challenges which they will encounter during the last decade of this century.

For many years, particularly in the 1950s, 1960s and 1970s, a great deal of money was spent worldwide on all sorts of higher educational campuses. These institutions added teaching and administrative and support staff, built facilities, purchased equipment, enrolled more students and made many problems less visible, even if they were not solved.

However, resources are not as plentiful in the 1990s as they once were and cost containment is now a major issue for higher education campuses as resistance to higher tuition cost levels increases and financial and recessional problems at provincial and state levels limit the funds available for this purpose. Colleges, technikons and universities will have to control costs and find reliable sources of additional revenue in order to keep resources from declining. Conservation of resources is already one of the complex issues of this decade (De Cosmo, Parker & Heverly, 1991:13-14).

Many businesses now realise that eliminating waste, inefficiency, and rework (doing things over again) leads to improvements in processes and that this approach does not necessarily require new resources. The development of new programmes and services which are necessary to survive in the nineties requires an economy and an "elegance" that higher education is not accustomed to achieving. The TQM paradigm offers tools and principles which help in controlling costs while improving quality.

Governments and the publics all over the world are scrutinising higher education more closely than ever before. They question the quality of higher education and demand greater accountability in all facets of campus life. Student retention rates are a

serious problem for most institutions. More students than ever before, and for all kinds of reasons, need remedial assistance in order to succeed in tertiary level programmes and the heterogeneity of the student body compounds the problems in many countries. If all students are to have the opportunities which their respective communities are demanding, then higher educational institutions will have to achieve a level of effectiveness which few have thus far attained.

While a number of programmes and services on many campuses are of adequate quality there are voices claiming that "good enough" is not good enough. The principles and methods embodied in TQM, especially its emphasis on continuous improvement, can provide an affordable avenue leading to excellent programmes and services and students have a right to expect nothing less than that.

Competition increases as the number of enrolling students declines (eg in the USA) or rises (eg in the RSA). As customers, the students want more and better services, especially as prices rise. Throughout the nineties, competition, either for students (USA) or for places (RSA) will become more intense. The institutions that survive will be those that best meet the requirements of their students and communities. Institutions which garner more resources will be those in which constituents and benefactors want to invest. Adopting TQM could give institutions the credibility they need to attract these investments. For this reason higher education institutions want to capture the quality niche in order to meet the competition of the nineties.

Although higher education claims to believe in collegiality, few colleges, universities or technikons have an effective paradigm for encouraging participation in decision-making. The complexities and opportunities of today's problems overwhelm even well-intentioned systems of control. Solving such problems requires the ability and hard work of everyone on a staff. TQM offers a paradigm that encourages effective participation. In order to make real progress in both quality and efficiency, every

staff member must be freed to pursue quality and accept responsibility for it, to work together in teams, and to listen to internal and external customers.

2. ADAPTATION OF TQM TO HIGHER EDUCATION

The big question which has to be asked is: How adaptable are the methods of Deming, Juran, and Crosby to the education industry? Manufacturing processes are far more predictable and controllable than the learning process. However, the service areas of a higher education institution - such as buildings and facilities, accounts, registration, security, and so on - all have counterparts in industry and commerce and should easily lend themselves to training in precision performance. This side of the educational enterprise can easily become the starting point for applying TQM principles.

Beside this, we do know a great deal about educational processes. Measurements of student achievement, curriculum, and instruction may yield more widely variable results than measurements on an assembly line. Nonetheless, by using the principles and techniques of quality improvement, we can learn much.

However, TQM principles should not be applied without research, adaptation, training, and pilot testing in an actual college, technikon or university setting. Educators need to be trained in the collection and interpretation of data on programme effectiveness and student achievement and the identification of patterns that develop over a period of time.

When a pattern is having a negative effect on the educational process, changes must be made. The quality improvement tools of TQM are available to do this.

3. APPLICATION OF TQM IN HIGHER EDUCATION

The view has already been propounded that strategic quality management does present a solution to the challenges facing institutions currently and during the rest of the decade. The

suggestion is that there is a match between the tools and techniques of SQM and the culture of the campus and also that there is some overlap between the philosophy of SQM and the approach of many campus academics and administrators. The view is that this new paradigm can make sense for higher education and can create a viable model for a technikon, college or university.

Higher education cannot afford to use narrow definitions of quality since the public and legislators and employers are not willing to accept them. Higher education institutions need to think in broader operational terms and SQM is concerned with developing and ·understanding systems for improvement and it provides a day-to-day operating philosophy. It is a basis for action, a comprehensive decision-making framework.

The core idea of SQM is that the leadership/administration needs to take responsibility for understanding the system (i.e. delivering educational services on campus) and for empowering everybody in the organisation to work on improvement. In order to implement SQM the existing system on campus needs to be divided into critical processes. Within each of these processes there is also a group of relevant subprocesses and improving the system at a higher education institution entails improving these processes.

An SQM approach would suggest that the function of the leadership/administration is not merely to describe what has happened in the institution, or to control what will happen, but to foster improvement by encouraging people to really understand the processes in which they participate.

In many parts of the world, higher education institutions seem to be confused about their exact purpose since academics go in one direction, administrators in another, and students only want to collect degree credits - different forces pulling in different directions. Because individual academic units are relatively free from the constraints which are present in other organisations, a professional autonomy emerges which is both a strength and a weakness. Such autonomy often results in an

educational institution operating like a seemingly random collection of elements without any unifying purpose. The problem, of course, being that in order to work as a cohesive whole necessitates some loss of autonomy.

If an institution can apply Deming's (1986) notion of "constancy of purpose" it provides a consistent philosophy and a unifying focus by emphasising a long-term commitment to a vision. It inspires confidence when an institution is able to articulate its goals and practice daily decision-making which is consistent with those goals. Encouraging a perception of quality helps break down the barriers between departments and disciplines. The strong orientation towards teamwork that is inherent in the SQM philosophy enables individuals to work at common purposes rather than at cross purposes, thus SQM has the ability to create synergy on a campus. It enables an educational organisation to regain its full place in society by assuming responsibility for helping to cause quality in a systematic and comprehensive way.

4. FUNDING AND QUALITY

Money alone does not guarantee campus and student quality and there are undoubtedly some very good institutions with far fewer financial resources than some markedly mediocre, well-funded ones. Higher education seems currently to be involved in a battle in which quality is equated with funding and jurisdiction. The assumption being that if you reduce the funding of an institution that you endanger its quality. It is not that funding is not important nor that more money would probably empower the campus leadership to achieve more. It is just that there is not necessarily a direct connection between money and quality.

The whole question of quality and the debate over quality-related issues is being raised in many countries and has become a political issue. The sorts of questions being raised in a number of countries (and especially in the USA) include: Do the practices and procedures of accrediting agencies (both institutional and disciplinary) ensure quality in our institutions?

5. AN EXAMPLE OF TQM IN HIGHER EDUCATION

Edwin Coate of Oregon State University (OSU) has written comprehensively about the advent of TQM at OSU (Coate, 1990:1-31). He describes the nine phases of implementation and their significance as portrayed in Diagram 4 below.

DIAGRAM 4
THE OSU TOTAL QUALITY MANAGEMENT IMPLEMENTATION MODEL
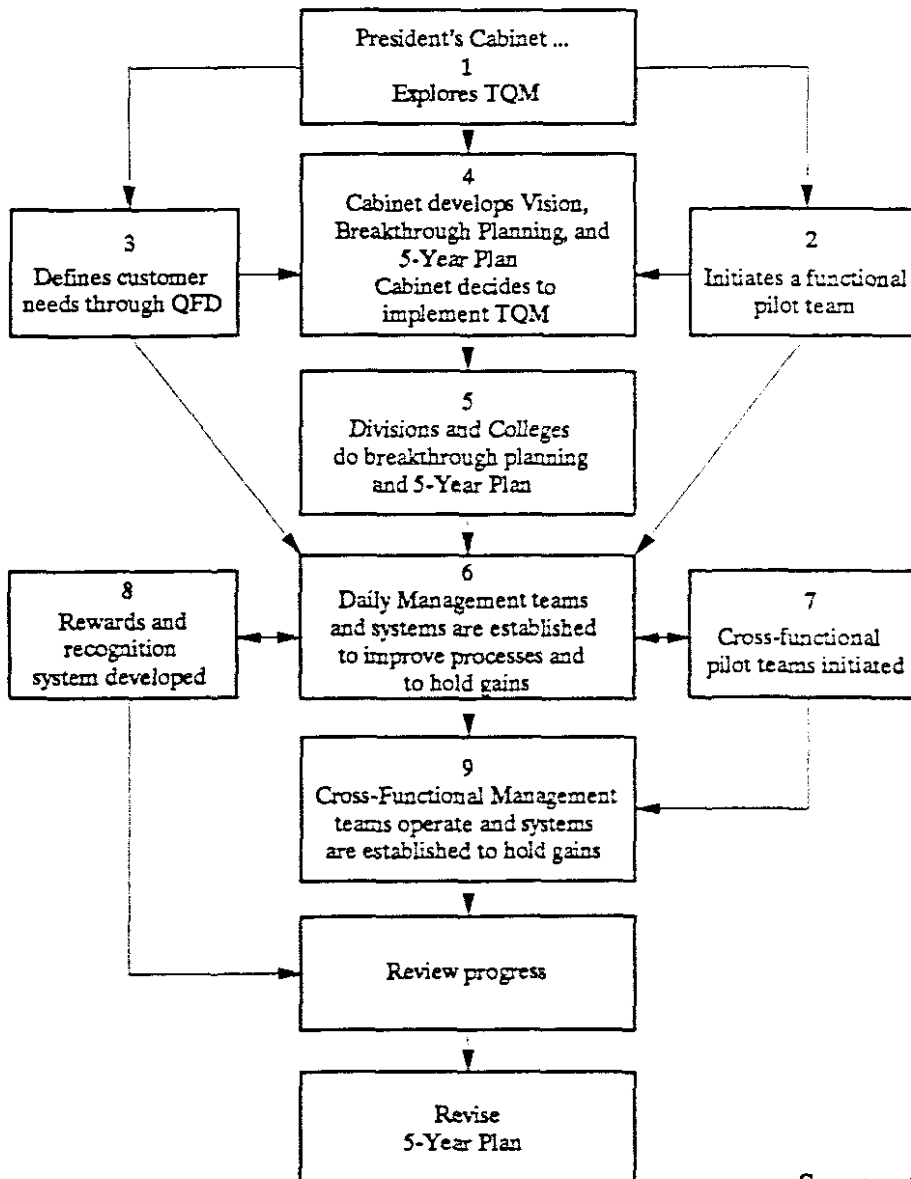
Source : Coate, 1990:8

According to Coate, OSU, in its vision statement, identified TQM as vital, not only for the realisation of its vision, but also for its continued survival in the HE market-place. Coate repeats the well-known TQM adage, namely, "quality is what our customers tell us it is, not what we say it is" (Kinlaw, 1992:26). Both internal and external customers want to receive the same high quality service at all times without any surprises.

Managers must lead the TQM process and continuously demonstrate that TQM is a top priority. Coate sums up the whole issue of implementing TQM in higher education in the following way:

> *"While Total Quality Management is a relatively simple concept, putting it to work in a university was more challenging than many of us realised at first. The language was foreign to us (universities do use different words than industry). The teamwork approach to problem solving was unfamiliar to most of our mid-level managers. But so far, we consider TQM a real success at OSU. We now have 15 teams operating and the results have been spectacular. Time has been saved, costs have been reduced, people have been empowered at all levels, and morale has skyrocketed"* (Coate, 1990:21).

Coate concludes his valuable paper by suggesting some key points in the successful implementation of TQM in a college or university:

> "* *Support from the top. It is essential to have a firm commitment from the President or Chief Operating Officer of the university. Deming found this to be the single most important step in implementing TQM.*

> * *Just do it. Don't study it to death. Learn about the steps the teams go through and get one*

*started. Only then will you understand what TQM
is all about and whether it will fit into your
culture.*

*   *The teams are everything. Focusing teams on
process improvement is what it is all about.
Make sure they have adequate training before they
begin. Then stick to the process. The Hawthorn
effect is prevalent at first, but the TQM process
will see that solutions get implemented. Team
building is almost as important as process
improvement.*

*   *You need a champion. Implementation of TQM takes
a long commitment (five years), a lot of time (up
to 20 percent), and costs money (at least
60K/year). Someone has to be the champion to get
it going, keep it going, and make sure solutions
are implemented"* (Coate, 1990:22).

6.   THE TOTAL QUALITY FORUM

In August 1991 in Cincinnati, Ohio, "The Total Quality Forum",
an annual gathering of academic leaders, was sponsored by
American Express, Ford, IBM, Motorola, Procter & Gamble, and
Xerox. For three days, more than 200 participants discussed TQM
and its role on US campuses, particularly at business and
engineering schools. By the end of the conference, Forum
participants had agreed to work towards an agenda for action.

What emerged from the conference was a belief that the business
community and academia have a shared responsibility to learn, to
teach, and to practice TQM. What also emerged was the view that
if the United States expects to improve its global competitive
performance, business and academic leaders should start an
initiative that stresses the importance and value of TQM.

Despite some successful collaboration between business and higher

education in advancing TQM, widespread adoption of this concept was perceived by many delegates as moving too slowly to meet the challenge it offered. For a variety of reasons, businesses are often hesitant to open their quality systems to academic scrutiny, thus hindering the study and understanding of TQM by the academic community. Because of the limited amount of scholarly research on this topic, many academic institutions have been slow to incorporate TQM into their core curriculum and their own administrative practices.

The business delegates felt that such a situation was harmful to all since business bears the burden of educating, and in some cases, re-educating new employees. This not only represents an additional cost but it also perpetuates a competitive disadvantage. Academic institutions that are slow to embrace TQM, at best, miss the opportunity of leading change and, at worst, run the risk of becoming less relevant to the business world.

Professor Robert Kaplan of Harvard University revealed how low is the level of academic coverage given to quality matters. According to his survey of curricula of 20 leading business schools in the US, only 20 percent of the introductory operations management courses spend more than three sessions on quality. In his survey of four operations management journals, of the 278 articles published in the last few years, there was virtually no direct coverage of TQM. The six companies involved in the Forum found Kaplan's findings troubling because they are convinced that TQM is a fundamentally better way of conducting business and that it is necessary for the economic well-being of the US (Kaplan, 1991:13-14).

According to the business delegates in an article entitled "An Open Letter: TQM on the Campus":

> "TQM results in higher-quality, lower-cost products
> and services that respond faster to the needs of the
> customer. Quality results are continually improved

through understanding and perfecting the systems by which organisations operate. This systems approach means closer ties between our suppliers and customers, both inside and outside our companies. TQM involves everyone in the organisation in achieving superior results, so that each person takes pride in maximising his or her contribution to customer satisfaction and business health" (Robinson, 1991:94).

The Forum delegates formed a Leadership Steering Committee consisting of senior executives of the six sponsoring companies and senior college and university representatives. This Committee was formed to implement three objectives developed by the attendees. Firstly, the identification of the core knowledge generic to total quality. Secondly, the development of a total quality academic research agenda and thirdly, the development of academic staff understanding and commitment to TQM.

As a result of attempts at the Forum at fostering meaningful contact between company and academic leaders, Motorola extended an invitation to 100 academics - one half from engineering and one half from business schools - to attend a one-week educational course at Motorola University in Schaumburg, Illinois in 1992.

In their "Open Letter" the six companies proposed a number of constructive steps in order to generate greater co-operation and understanding:

"For Business: 1. Open a dialogue with the academic community. Invite academics and students to your facilities to study your TQM practices... set up formal relationships with local colleges and universities, encouraging research of your TQM practices.

2. Identify TQM leaders within your organisation and make them available... for seminars and lectures.

3. Communicate your TQM needs to the administrators and faculty where you recruit. Establish formal guidelines for hiring that include a minimum acceptable curriculum of TQM training. Make TQM an integral part of on-campus interviews". (Robinson, 1991:95).

What emerged from the "Total Quality Forum" for the universities and colleges included the need to learn what leading TQM organisations in the US and abroad are teaching their employees. The delegates proposed the establishment of a research agenda in TQM and the identification of the role which it should play in future research projects. These institutions were also encouraged to take an inventory of their curricula by measuring the proportion of quality-related course content in core courses as well as electives.

The "Open Letter" from the six hosting companies ends as follows:

"Our system of higher education is one of this country's most powerful competitive weapons. Working together, companies and institutions of higher education must accelerate the application of total quality management on our campuses if our education system and economy are to maintain and enhance their global positions" (Robinson, 1991:95).

7. TOTAL QUALITY MANAGEMENT IN HIGHER EDUCATION IN THE UK

In a highly stimulating paper, published in December 1991, Professor Sir Frederick Crawford sets out his views on TQM in his own inimitable manner. His initial statement sets the stage:

"Over the last decade, a widening range of expressions, such as Quality Management, Quality Policy, Quality Function Deployment, Quality Assurance, Quality Audit, Quality Assessment and Quality Control, have rippled into the tranquil

backwaters of the academic world. What do they all
mean? Does it matter? Is it going to make any
difference to me? The answer to the last question is
a resounding 'yes', and this brief note is an attempt
to say why" (Crawford, 1991:1).

Crawford refers to the development of TQM after the Second World
War and to the American and Japanese gurus and states that there
has been some progress made in the UK without the emergence of
a national guru. According to him, the TQM approach involves
detailed consideration of processes, but those operating the
processes are strongly involved in refining them for greatest
effectiveness, and ensuring that their operations match optimally
into their "suppliers" and their "customers".

DIAGRAM 5

VARYING ROLES OF THE INDIVIDUAL IN TQM

```
+-------------------------------------------------------------------+
|                                                                   |
|   SUPPLIER(S)                    CUSTOMER(S)                       |
|   ----------->   +-----------+   ----------->                     |
|      Input       |  PROCESS  |   Output                           |
|   ----------->   +-----------+   ----------->                     |
|                                                                   |
|   Customer     |  You are the   |   Supplier                      |
|                |  Processor     |                                 |
|                                                                   |
+-------------------------------------------------------------------+
```
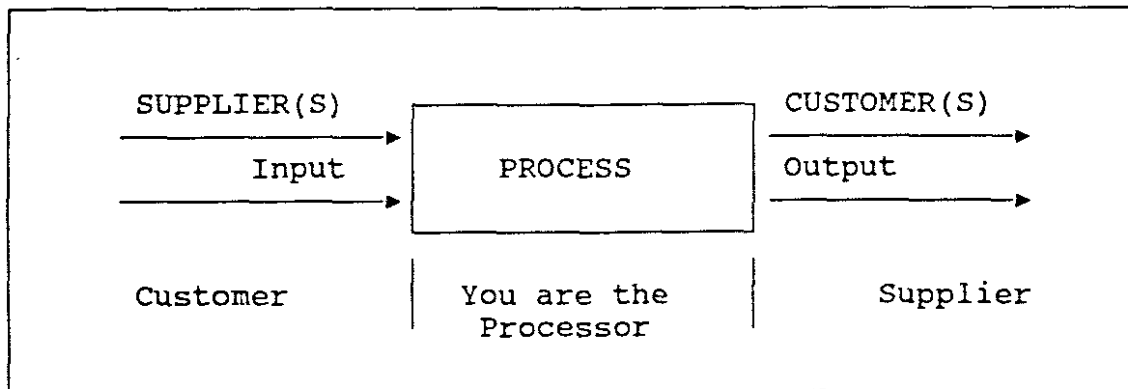
Source: Crawford, 1991:2

Crawford concludes therefore that the TQM movement is
behavioural. It works. It is not a fad. It will not go away.
It has demonstrated that the cost of poor quality can be tens of
percent of the costs of goods and services. There are very
substantial savings to be made. To develop a powerful quality
ethos requires not only culture change but also staff development

to appropriate levels of education and training. Attention must be given to strategy, structures, systems, skills, style and shared values. Participation and problem-solving are key elements. They are often formalised in Quality Circles (QCs), though QCs are not central, or even essential, to TQM (Crawford, 1991:1-2).

Crawford refers to the shortest and most useful definition of quality that has emerged from the TQM literature, namely: "Quality = Fitness for Purpose". This has very profound implications for the current transformation of higher education in the UK since it implies that whether or not quality is being delivered can only be determined if the purpose to which effort is being directed is clearly defined.

The British Standard 5750, on Quality Systems, contains sections that express well the philosophical nature of TQM. It should be remembered, however, that no arbitrary set of standards, or prescriptions for quality management, can be relied upon completely in a specific case. Each has its own standards, determined by the purposes for which services or goods have been designed (plus any legislative or regulatory constraints). TQM is about aspirations that can only be approached, without perfection ever being achieved; it is not about satisfying the minimum specified standards that one can get away with (Crawford, 1991:2).

8. FOX VALLEY TECHNICAL COLLEGE QUALITY MODEL

8.1 The Quality Quest

The constructive work done at Fox Valley Technical College (FVTC) in Appelton, Wisconsin in the USA, provides valuable indicators and guidelines for the establishment of a logical and practical quality model (see also Appendixes 3-6 for further details).

The sixteen steps proposed in this model could easily be adapted to the needs of any higher education institution and they are in

accordance with the views of the most able thinkers in the quality assurance field.

The so-called "Quality Process-Education" (DACUM Chart) (see Appendix 3) sets out a constructive and rational model which could be used in the implementation of a quality improvement process. The establishment of its own Academy for Quality in Education has placed Fox Valley at the forefront of quality improvement and assurance planning and the simplicity and clarity of the system which has been developed over five years warrants careful scrutiny.

The FVTC Model has undergone change and modification under the guidance of its own Quality Improvement Council, and its Quality Academy. Using the Hoshin Planning Process, team members developed the Mission Statement and the Tree Diagram shown in Appendixes 4 and 5.

The FVTC quality policy states that is seeks to consistently provide instruction and services that meet or exceed the quality expectations of its internal and external customers. Such a policy requires the managers, teaching and administrative staffs to clarify specific responsibilities for quality and to develop strategic quality plans and objectives on an ongoing basis. It demands that every person be a part of the quality system and identify and eliminate the sources of problems in one's processes and procedures.

The model described in Appendixes 3-6 was evolved over a period of more than five years of experience in designing and implementing the quality process at FVTC. Since quality is a perpetual process the model is adapted and changed periodically in the quest for effectivity.

8.2 Quality First Process Model - 16 Steps

Although a more detailed analysis and description of the 16 Steps is provided in Appendix 6, it is appropriate to list the steps in order to indicate the value of this model. The steps contain

the best features of the Crosby, Deming, and Juran models and include recommendations given by authors noted for their writings on quality, including Ron Zemke, Karl Albrecht, Glenn Hayes, and Tom Peters (FVTC, 1991:2).

The model which evolved is adaptable to any organisation - service or manufacturing. The FVTC staff believe that it is not necessary that the steps should follow in sequential order, although they do recommend that the first four steps be completed first. The emphasis given to the activities described in each step will vary from one organisation to another, depending on the facts unique to that setting. However, it is felt that the model is adaptable to any organisation by maintaining the principal features and by modifying certain components based on individual needs. The following headings from each of the steps indicates the trend of the planning procedures:

"Step 1   -   *Demonstrate Management Commitment*
Step 2   -   *Establish a Quality Improvement Council*
Step 3   -   *Establish the Cost of Quality*
Step 4   -   *Provide Education and Training*
Step 5   -   *Identify Roles and Establish Performance Requirements*
Step 6   -   *Implement a Quality Communication System*
Step 7   -   *Measure and Set Goals*
Step 8   -   *Identify and Eliminate Problems*
Step 9   -   *Research and Develop New Initiatives*
Step 10 -   *Create a Structure for Employee Involvement*
Step 11 -   *Establish Accountability*
Step 12 -   *Launch a Customer Revolution*
Step 13 -   *Recognise, Reward and Celebrate*
Step 14 -   *Conduct Quality Audits*
Step 15 -   *Link to the Community*
Step 16 -   *Strive for Continuous Improvement"*

(FVTC, 1991: 4-34)

It is evident from an analysis of the FVTC model that it contains

significantly important principles which should be considered by any HE institution intent on maintaining or enhancing the quality of its operation at all levels and for all functions.

REVIEW OF CHAPTER FOUR

The brief statement, which this chapter provides, on the principles of TQM as applied to higher education campuses and the OSU and FVTC examples, set the scene for the following chapters which examine the background to standards and quality in higher education in the UK and the USA.

One can deduce from the assumptions made in Chapter Four that the TQM principles can be adapted and utilised by educators and that considerable long-term gains can be derived from sustained and planned attempts of this sort. Placing this chapter at the core of the study is appropriate since it provides a number of useful points on the implementation of TQM in higher education which will inevitably have to be included in any model which is created.

The examination of some of the philosophical and "de facto" situations prevailing in the UK and the USA in the ensuing chapters, once again highlights the need to take cognisance of such vast higher education systems and to benefit from their experience.

CHAPTER FIVE

QUALITY AND STANDARDS IN THE UNITED KINGDOM

FOREWORD

In pursuance of the principle of eclecticism, it seems logical to include a brief examination of one of the most sophisticated systems of higher education in the world, namely, the United Kingdom.

There are few systems which have the substantial foundation, both historically and reputation-wise, which the UK has, and the refinement and honing of the "standards" and "quality" issue has been pursued vigorously during the post-Second World War era.

Some of the higher education establishments in the UK are regularly used as benchmarks of quality. For this reason it is wise to refer to the methods of quality control which have been implemented by the Council for National Academic Awards (CNAA) and other bodies during the last forty years.

Since higher education in the RSA has been, and still is, strongly influenced by European and UK trends, it is logical that very careful cognisance must be taken of such events. Their significance and value to the RSA should therefore be thoroughly evaluated.

The parallels in higher education which exist between the RSA and the UK are considerable, therefore the examples and lessons drawn from the UK are all the more meaningful.

1. QUALITY AND STANDARDS - AN ECLECTIC APPROACH

1.1 The Higher Education System in England

Education as it has evolved in England has important strengths but also crucial weaknesses. These weaknesses and certain other

factors have led to a number of recent changes particularly at the post-compulsory school level. These changes are very significant and warrant examination and analysis.

An education system's performance can be judged by a number of criteria. The one most frequently cited in England is the "level of participation". That system is seen to be failing because so few young people continue in education and training beyond compulsory schooling.

There can be little doubt from the attainment point of view that Britain's graduates are acknowledged throughout the world to be of high standard. Graduate output in the UK is of the same order as the entry, unlike that of some countries. British higher education may admit few students, but graduate output is about the same as in France and Germany and most other countries, except the US, Canada and Japan. However, this success casts a long shadow. Severe sorting by academic attainment tends to suggest that academic talent is the only kind that matters. The sharp separation of those going on to higher education from the rest tends to create two classes; by contrast the many movements into and out of higher education in other countries makes for more integration.

England has an education system which is firmly academic, geared to university entrance and with few subjects taken in the sixth form. Attempts to make changes must reckon with the strength of that tradition. Many efforts at providing more practical/ technical education have foundered because of "academic drift". The prestige of academic study, for example, led institutions created for technical or technological advancement to become, or aspire to become, universities – first the Colleges of Advanced Technology and then the Polytechnics. Further Education Colleges are keen to demonstrate their worth by teaching A levels. Technology, introduced as a subject to bring the practical/technical into the national curriculum, is already more about writing how to do things than actually doing them. The obstacles to change should therefore not be underestimated.

1.2 Technical and Vocational Education

England has never had a clear ladder of practical or vocational qualifications to complement the academic/theoretical ladder represented by good GCSEs, rising to A levels, rising to grant-supported higher education. As stated previously the main qualification for getting into training or work at 16 appears to be failing to get five GCSEs at grades A-C. Those without grades A-C tended to go on to youth training, work without training, or unemployment.

A major development since 1987 has been the introduction of Youth Training. It now occupies about a fifth of the age group 17 and 18. The early scheme, the Youth Opportunities Programme, was mainly a response to youth unemployment, offering work experience of up to six months for unemployed 16 to 18-year-olds. However, it gradually developed into an important part of the Government's training strategy.

The vocational ladder was also changed in 1983 with the creation of the Business and Technology Education Council (BTEC). BTEC was established in order to bring about a framework of nationally recognised qualifications for technicians and for those of comparable responsibility in business and commerce. It has established a structure at three levels - first, national and higher national - building on the long tradition of Ordinary and Higher National Certificates and Diplomas and on the newer awards of the Business and Technology Education Council. The courses are modular based on a common core with more specific job-related modules. BTEC checks expertise and moderates courses, but does not examine.

Since 1983 there has been a substantial growth in the two-year full-time National Diploma which is often taken straight after school. In one study done by Smithers in 1991, 40 per cent of the students on BTEC National courses expressed a wish to go on to higher education, so this could be viewed as an emerging practically-based alternative to A levels (Smithers, 1991:30).

However, BTEC is still in essence a route for people who have failed something. Inevitably, it is seen as second best and lacks esteem. Not surprisingly BTEC holders are less acceptable to higher education and do less well there.

There are many vocational qualifications at post-16 level. As well as BTEC, bodies like City and Guilds, the Royal Society of Arts, Pitmans and the London Chamber of Commerce and Industry also validate qualifications. BTEC qualifications awarded in 1990-91 totalled 166 418 in comparison with the fact that in 1989-90 City and Guilds examined 639 161 candidates and made 410 242 awards, and the Royal Society of Arts had total entries of 909 884 (Smithers, 1991:37) (BTEC, 1991:20).

The National Council for Vocational Qualifications (NCVQ) was established in 1986 to bring some order to the great diversity of vocational qualifications. It has sought to do this by establishing a framework of five levels of achievement and occupational areas. It hopes in this way to:

* recognise competence at different levels so that the awards of bodies such as BTEC, City and Guilds and the Royal Society of Arts can be brought together on a common scale and new awards developed of appropriate standard;
* to establish some kind of equivalence between vocational and academic qualifications;
* facilitate transfer and progression to enable individuals to achieve their potential.

If this could be accomplished it would be an important step towards establishing a coherent vocational track, but the NCVQ has adopted a distinctive approach which has led to fierce criticism. It is based on analysing desired capability into numerous job-specific skills. Competence is assessed by the employer with no external validation of standards. The high degree of specificity without regard to general abilities raises questions about the transferability of qualifications. There are

large and unresolved differences between BTEC and NCVQ over their approaches to vocational education. There must be doubts therefore as things are at present whether the NCVQ can successfully deliver the rationalisation for which it was established.

There have been a number of initiatives in vocational and technical education in England, particularly recently, but they have been haphazard and do not lead clearly either into employment or on to the next stages of education. What is needed is:

*   a range of recognised school qualifications in technical and vocational subjects up to age 18; and
*   a matrix of varied vocational qualifications at various levels beyond school.

However, it is important that the practical-vocational ladder should be freely chosen and not merely resorted to after failing academic subjects.

The character of the English education system emerges in the country's workforce. At the graduate level it compares favourably with other countries but, because schools, in effect, dismiss a large proportion of the population as unacademic rather than developing their talents for making things, designing things and working with people, Britain lacks the range and level of developed skills that many other western nations have at their disposal.

1.3   Industry and Higher Education

The Council for Industry and Higher Education (CIHE) is another example of more recent shifts in policy and is indicative of the attempts being made to modify higher education and mould it differently in order to preserve standards and relevancy.

The Council was established in 1986 in order to encourage

industry and higher education to work together and to represent their joint thinking to the UK government. It is a forum at the highest level where academic and business leaders can mark out long-term common interests and begin to create a common language with which both can learn to feel at home. It is able to speak powerfully with a joint voice to government, to universities, former polytechnics, colleges and to individual companies.

The Council is independent and its members are heads of 37 very large companies and 13 academic institutions. It is self-appointed, has no official standing nor any representation or regular financing from the government. Its authority depends entirely on the quality of what it says.

In 1987 a strategy for development was decided upon and published in a statement: Towards A Partnership - Higher Education, Government, Industry (CIHE, 1987).

There were eight elements in this strategy for higher education, namely:

TOWARDS A PARTNERSHIP

> "1.   We must change our higher education system from one geared to a small minority to a more open system which brings many more people to a generally higher level of education than that they attain now.
>
> 2.   The universities and polytechnics must broaden and re-balance their courses towards mathematics, science and technology as part of the general provision on which specialist education is built.
>
> 3.   Universities and polytechnics need to provide courses for mature students who have entered working life and to undertake professional re-training as one of their central objectives.
>
> 4.   We must set strategic priorities for scientific research.   Government must protect our

> *outstanding national science base, unquantifiable*
> *though its output may be, as the seedbed of*
> *future marketable technologies.*
>
> 5. *Higher education needs to be restructured and*
>   *well managed to meet these purposes. This will*
>   *include some quite rapid concentration on*
>   *research effort and some measures for its*
>   *direction towards programmes of probable*
>   *long-term economic relevance.*
>
> 6. *We must move progressively to a situation where*
>   *customers of higher education, both individuals*
>   *and industry, contribute significantly to its*
>   *cost and exercise significant influence as*
>   *customers.*
>
> 7. *Industry needs to involve itself in higher*
>   *education.*
>
> 8. *The current effort to broaden and re-define the*
>   *secondary school curriculum must be sustained."*
>   *(Coldstream, 1991:5).*

"Towards a Partnership" was published at a time when demographic trends and financial stringency had produced talk of cutbacks and contraction; there was talk of closing several universities. In contrast the Council proposed large-scale expansion of higher education.

However, there was no reason for investing in more of the same rather selective, specialised "academic" higher education which existed in the UK:

> *"The higher education system should cater for much*
> *larger numbers than at present, recruit them from a*
> *much wider segment of the population, and offer them*
> *(and often their employers) a diversity of learning*
> *opportunities at different stages of their lives"*
> *(CIHE, 1987:5).*

The Council disdained an instrumental or narrowing approach to

higher education. Its request was not for short-term relief from worrying skill-shortages nor for a restrictive vocationalism. What business needed was seen in the widest terms: not merely a supply of well-educated and trained manpower but to be part of a well-educated society. The Council stated:

> *"Academics and businessmen alike believe that the UK's prosperity and vitality depend upon our rapidly becoming a more highly and broadly educated nation at every level and that, in particular, the perspectives and skills associated with mathematics, science and technology. must be central to that education"* *(Coldstream, 1991:4).*

The role of the Council is vital to the development of a balanced strategy in British higher education. Its growth and involvement indicate how important it is for the full participation of the business/industrial community in the achievement of an understanding with those in the academic/educational world.

2. THE COUNCIL FOR NATIONAL ACADEMIC AWARDS (CNAA)

2.1 Establishment and Purpose

The Council for National Academic Awards was established in 1964 with:

> *"... powers to award degrees, diplomas and certificates ... to persons who have successfully pursued courses of study approved by the Council at educational establishments other than universities"* *(CNAA, 1964: Statement No 1).*

It built on the experience of its predecessor body, the National Council for Technological Awards, and required institutions wishing to offer degree courses to be responsible for designing, teaching and examining them:

"Since the Council was established with the purpose of enabling colleges to plan their own courses and to admit and examine their own students it will impose only such basic requirements as are necessary to ensure that its degrees are comparable in standard to those of the universities" (CNAA, 1965: Statement No 2.)

At that time, the CNAA concerned itself with encouraging good course design and with fostering in course teams and institutions collective responsibility for academic standards and the quality of course delivery (Harris, 1990:34). It took account of aspects of the institutional context of courses, including the character of a college's environment of advanced studies, the quality of its staff, and the availability of appropriate accommodation and equipment. Its "Principles" (CNAA, 1986) required broad curricula and the provision of an intellectually challenging institutional environment.

Institutions wishing to offer courses leading to CNAA awards were required to submit written proposals. In order to recognise a course the Council had to be satisfied about the rigor of the course and the final standards. The CNAA's validation process, through which national recognition was bestowed on a proposal, drew in eminent subject specialists from across the UK, including university teachers and practising professionals.

The other element of the CNAA's quality control procedures, shared with the universities, was the external examiner system. External examiners were nominated by institutions and appointed by them after their appointment had been approved by the CNAA.

2.2 Phases of Development

Three distinct phases are discernable in the CNAA's relationship with the non-university institutions. The first, which lasted until the mid-1970s, relied heavily on the contribution of university teachers in establishing high academic standards in

public sector higher education. During this phase the CNAA was able to prescribe the conditions under which courses could be offered and to secure considerable improvements in institutions' staffing and physical resources.

The second phase, from the mid-1970s to the mid-1980s, was characterised by a more collaborative style of working. There was a growing emphasis on institutional responsibility for the quality of courses.

Institutions strengthened their internal validation and monitoring processes, and the "partnership in validation" policy implemented by the CNAA during this period led to the fuller involvement of institutions in external course validation and review.

A third phase began in 1986. Subject to periodic institutional accountability to the CNAA, "accredited" institutions became fully responsible for the academic quality of their courses. Validation and review were, in the main, managed internally. The peer groups for course review, were largely drawn from "responsible and experienced" members of staff who were accountable to institutions' academic boards (Harris, 1990:35).

These phases reflected a fundamental shift in the way in which the CNAA related to institutions. As Harris so succinctly summed it up:

> "In the first phase, the CNAA's subject Boards formed
> direct contacts with individual course teams. In the
> second phase, the relationship between the institution
> as a corporate entity and the CNAA became increasingly
> important, and was expressed through institutional
> reviews. In the third phase, the institutional
> relationship is all-important: the CNAA sees
> accredited institutions as being fully responsible ...
> for maintaining the standard of courses leading to
> CNAA awards ..." (Harris, 1990:36).

2.3 Institutional Accreditation

The CNAA went through a transitional stage in its development from a validation body to an accrediting body. It shifted its attention from the quality of individual courses within institutions to the effectiveness of institutional arrangements for maintaining and enhancing the quality of its courses.

Accreditation represented a watershed for the CNAA and entailed the abandonment of one of its important achievements, namely, the creation of its subject Boards which had become a repository of national expertise on curriculum design, pedagogical practice and subject authority in higher education. The Boards were regarded as points of reference on standards and influential sources of advice on changing national practice by course teams and validators (Harris, 1990:36).

Although course teams found the CNAA validation event an onerous and uncomfortable experience, the system was at best rigorous and dynamic for three reasons. Firstly, course teams had to defend their proposals before an external group of subject peers. Secondly, visiting parties were able to encourage good curriculum design and to secure enhanced resource provision on behalf of course teams. Thirdly, course teams with innovative proposals could be assured of the national acceptability of their educational strategy once it had been subjected to the independent "professional scrutiny and accountability" which the CNAA was able to provide (NATFHE, 1980).

As an accreditation body, the CNAA set operational parameters within which institutions discharged their responsibilities for the delivery and evaluation of courses. It held institutions accountable for operating within these parameters, some of which were specified by the CNAA and others which were negotiated between the CNAA and individual institutions. There was therefore a two-tier structure of accountability: institutions were required to establish systems for validating and reviewing their courses through the medium of peer group review; and the

CNAA judged whether their course management and evaluation systems operated satisfactorily (CNAA, 1987).

2.4 Quality Assurance

"Quality assurance" is a phrase which entered the CNAA's vocabulary during the accreditation period. The phrase is generally used in the manufacturing industry where two different generic usages are identifiable. The first is often called quality control and is characterised by companies that pay more attention to issues arising from the production of goods than to engineering design or the production process (Earl, 1984:24).

This concept of quality assurance has an analogy in higher education in the external examiner system where such individuals are the guardians of the standards of the awards given to students.

The second generic model of quality assurance is encompassed by the expression derived from the British Standards Institution, BX4891 (1972), that "quality cannot be inspected into a product, it must be manufactured into it". The development of these quality assurance models has been made possible by increasingly adaptable and sophisticated means of production, and is typified by the total quality management movement practised in Japanese industry and in other parts of the world (Garvin, 1987:37).

2.5 Course Validation and Review

In using external peer group review as the instrument it employed for making judgements on academic quality, the CNAA was able to respond to three problems: defining quality in higher education; the competitive differentiation between courses and institutions; and the significance of the educational process in addition to the educational outcome.

The peer group review system thus encompasses two primary functions: the assurance of quality through calibration against

external references; and public accountability. It has many strengths in respect of courses. It ensures through periodic testing that standards are kept above a general national threshold, and in so doing fulfils one of the aims of quality assurance. It is a powerful device for facilitating the transmission of good practice between institutions, and thus for fostering a systematically dynamic approach to the enhancement of quality. According to Harris:

> "... through its (i.e. peer group review) use of shared assumptions, it overcomes the problem of specifying standards and quality in higher education, not only in the technical sense of defining the 'product' and 'performance' to be tested, but also in the behavioural sense of arbitrating between substantially competing definitions of quality" (Harris, 1990:42).

In examining the changing role of accreditation and review it is clear that, over time, the contingent relationship between course validation/review and academic standards became embedded in the CNAA's culture. Validation and review are regarded as essential means for acquiring information about courses and for forming academic judgements about their quality. The CNAA came to regard the quality of a course as a proxy for the standard of the award to which it leads, and validation and review were the means through which the academic quality of a course was judged.

2.6 Quality Assurance under Accreditation

In the period 1964 to 1992, accredited polytechnics and colleges could properly be regarded as quality assurance bodies in the sense understood in industrial practice, since they were concerned with the effectiveness of course design, the course delivery process, and the quality of output of courses. They were in a better position than the CNAA to identify problems and opportunities and to undertake remedial or developmental action. Judgements on the quality of their courses were made by an instrument appropriate to the circumstances of higher education,

namely, external peer group review. This all testified to the success of the CNAA's engagement with them since 1964 (Harris, 1990:49).

There can be no doubt that, from its comprehensive knowledge of quality assurance practices in the UK, the CNAA contributed much to the arrangements for ensuring that standards in higher education were monitored and maintained. Its work, and the foundation it laid, provided the base for the units which the Committee of Vice-Chancellors and Principals (CVCP) later established for the assessment of teaching quality and academic standards in universities.

2.7 The CNAA's Demise

The abolition of the distinction between universities and polytechnics (the so-called binary line) during the early 1990s and legislation which allowed the polytechnics to become universities, led to the closure of the CNAA late in 1992.

The CNAA had served the non-university sector well over a long period and it had encouraged careful scrutiny of standards and quality in a large portion of the higher education sector. It had also refined many techniques for quality assessment and developed the Credit Accumulation and Transfer (CAT) scheme which encouraged mobility and controlled credit accumulation. In fact the CNAA has been, and still is, used internationally and is acknowledged as a model for a system of balanced control and evaluation of certain sectors of higher education.

Many of its programmes and schemes have been perpetuated or adopted by the Academic Audit Unit (AAU) and more recently the Higher Education Quality Council (HEQC).

3. RECENT QUALITY MANAGEMENT IN HIGHER EDUCATION IN THE UK

3.1 Academic Standards in Universities in the UK

"Quality and standards are words in constant use. Few

stop to think what precisely they mean, and many could give no precise definition if they did ... Quality has no meaning except in relation to purpose or function ... This word too (i.e. standards) is bedeviled with ambiguities" (Reynolds, 1986:3).

In a paper, written as a foreword, to a report on "Academic Standards in Universities" in 1986, Reynolds presents a number of very constructive points of view referred to in Chapter Two). These balanced and rational statements were prepared in consultation with the CVCP group on academic standards.

The underlying purpose of the CVCP academic standards group has been to identify ways of strengthening universities' procedures in order to increase the degree of validity and reliability of standards, and thus to make judgements of quality to some extent less fallible, whether made by the universities themselves or by persons outside. Reynolds and the CVCP academic standards group have set out their views on a number of important aspects such as staff, courses, assessment and comparability of degree, institutional ethos, university autonomy, social criticism, teaching and research, autonomy and standards.

The conclusion of the paper written by Professor Reynolds is succint and worthy of note since it summarises in three sentences the question of a valid and reasonable approach to this vexing problem:

"The constant advance of knowledge requires constant reconsideration of the procedures that are appropriate for the maintenance of quality and standards. Universities have always been aware of this, but an important result expected from the present study is that reviews of procedures will be regular and systematic throughout the university system. Given the dependence of quality and standards on close, detailed and continuous scrutiny, and in the last resort on the professionalism of the university

teacher, this process of regular review, within the
framework of maximal university autonomy, constitutes
the best guarantee of the maintenance of standards in
British universities" (Reynolds, 1986:9).

3.2 Background to the Academic Audit Unit (AAU)

Academic audit, or quality audit, as it has become known more recently, is a concept which has developed in British universities during the last seven or eight years. Following the creation of the Academic Audit Unit, in October 1990, by the CVCP, it became one of the primary mechanisms of quality management for the universities.

British universities, by virtue of the Royal Charters or private acts of Parliament by which they were/are established, are entirely responsible for the degrees which they award and for their own academic standards. Other institutions of higher education, such as polytechnics and colleges of higher education have/had no degree-awarding powers: the qualifications they offer were validated by the CNAA or by the universities. This particular distinction of the binary line in the UK has recently been changed in the case of the polytechnics, while certain other institutions are being examined with a view to a possible status upgrade as well. The polytechnics were given full degree-awarding powers with effect from September 1992 and almost all of them have been redesignated as universities.

According to Peter Williams, then Director of the AAU, until the mid-1980s, the quality of the programmes offered by the universities was, by and large, a matter left to those institutions alone. There was a general assumption of their excellence, and favourable comparisons with international standards were asserted. In the universities the assurance of the quality and standards of their degrees relied mainly on the external examiner system, whose use is intended to ensure comparability of academic standards between institutions, at least as far as individual subjects were concerned (Williams, 1992:32).

Another quality assurance stance included a high degree of self-confidence (some might say complacency) which was defended by reference to the insatiable demand for student places, the impressively low wastage and high graduation success rates, and the marketability of the degree. This early use of performance indicators seemed to demonstrate that all is well and, according to Williams:

> "Difficult questions (on the rare occasions when they
> were asked) were disdainfully dismissed: an attempt
> to query any academic matter was portrayed as an
> outrageous infringement of academic freedom; none but
> the expert practitioner, enquirers were told, was in
> a position to pass informed judgement. Few outside
> the system were bold enough to dispute this in public"
> (Williams, 1992:32).

For these reasons, the effects of the general election in 1979 on the universities were traumatic. All publicly-funded enterprises were subjected to scrutiny and most were found wanting, at least in terms of the values which the new Government espoused. Use was made of the standards and methods of commerce and industry, to the virtual exclusion of the values of the public service which had developed over the previous hundred or so years. Accountability and value-for-money became the watchwords of Whitehall; the vocabulary of the management consultant and the management techniques of industry were increasingly referred to in its corridors. Explicit references to quality and standards - though these were rarely defined - became more common.

The full import of this new public ethic became clear to the universities, in practical terms, in 1981 when Government financing of higher education was severely curtailed. For a while thereafter the universities could do nothing right. They were portrayed as unresponsive, unaccountable, non-relevant, badly-managed, and generally ill-fitted to meet the needs of the new entrepreneurial world. While it is true that such criticisms

were only partially valid, many of the traditional university administrations were ill-equipped to handle the new demands being made of them. In order to meet the challenge, they soon acquired better financial management, more effective decision-making processes and more articulated academic strategies.

The universities also responded jointly to these attacks. The CVCP established a series of thematically-based efficiency studies together with the University Grants Committee (the Jarratt Report, 1984). These studies found that the universities were doing well but also concluded that the old order, whatever its merits, had now passed. The implications of the Jarratt Report have been far-reaching. One manifestation of its influence was the establishment by the CVCP, in 1983, of an Academic Standards Group (the Reynolds Committee) in order to examine the question of academic standards in universities. Williams summarises the reasons for this committee in this way:

> "While in part a defensive move, to protect universities from the threat of external inspection, it also reflected an acknowledgement that an attentive concern for the maintenance and enhancement of academic standards was an integral and vital part of the obligations laid upon universities by their charters and statutes. By extension, the conscientious discharge of these obligations was fundamental to any claim of professionalism by university academic staff" (Williams, 1992:33).

The Reynolds Committee Report was published in 1986 and covered a wide range of topics relating to quality and academic standards. These included three formal codes of practice (on external examiners, postgraduate training and research, and research degree examination appeals), as well as two papers on external and internal means for the maintenance and monitoring of academic standards, which offered universities yardsticks for self-comparison.

A further CVCP enquiry into the extent to which universities had implemented the recommendations of the Reynolds Report, followed in 1988. This revealed that most universities claimed to have adopted most of the recommendations, however, the doubts about the possibility of mere superficial compliance led to demands for a more stringent monitoring process. The Academic Standards Group was re-established by the CVCP late in 1988, under the chairmanship of Professor Stewart Sutherland and produced a further report in 1989 on the implementation of the codes of practice.

The Education Reform Act of 1988 came into effect in 1989 and led to the creation of the Universities Funding Council (UFC), a body which was not so firmly rooted in the university world as its predecessor, the University Grants Committee (UGC). The UFC made it clear that if the universities did not begin to take action on the monitoring and improvement of quality and standards, it would be forced to do so itself.

The Academic Standards Group recommended the establishment of an Academic Audit Unit, to be "owned" by the universities themselves. Plans to establish the Unit were drawn up early in 1990 and it started to function on 1 October 1990.

3.3 The Academic Audit Unit

Although the AAU has now been superseded by the Higher Education Quality Council (HEQC), it is nonetheless appropriate to analyse its terms of reference since these principles and applications have also been largely adopted by the HEQC.

According to the AAU Annual Report 1990/91 the Unit's terms of reference are the following:

> *"i   to   consider   and   review   the   universities'
> mechanisms   for   monitoring   and   promoting   the
> academic   standards   which   are   necessary   for
> achieving their stated aims and objectives;*

ii   *to comment on the extent to which procedures in place in individual universities reflect best practice in maintaining quality and are applied in practice;*

iii *to identify and commend to universities good practice in regard to the maintenance of academic standards at national level;*

iv   *to keep under review nationally the role of the external examiner system;*

v   *to report to the CVCP via the Management Board.*

The Unit's work is concerned only with programmes of study, not research, although postgraduate education (including doctoral and masters' research programmes) does fall within its scope" (CVCP-AAU, 1992:5).

3.3.1 Scope of AAU

When deciding on the Unit's basic working method, the Management Board focused its attention on four areas where quality assurance mechanisms are particularly important, and where universities might be expected to have procedures in place. The Board drew up the following checklist in order for the Unit to be able to monitor universities' quality assurance mechanisms and structures. It does this by examining and commenting on the adequacy of:

"i   *Universities' mechanisms for quality assurance in provision and design of courses and degree programmes:*

*   *having centrally planned monitoring of courses and teaching;*
*   *scrutinising new courses or degree programmes (or revision of them);*

* *monitoring course design in relation to student intake and non-traditional entrance;*
* *monitoring validation by the university of courses in associated institutions.*

ii *Universities' mechanisms for quality assurance in teaching and communication methods:*

* *monitoring existing courses and degree programmes including data collection, such as student numbers, drop-out rates, classified degree results etc.;*
* *monitoring postgraduate training and research, including appeals procedures at postgraduate research degree level;*
* *seeking external examiner's views;*
* *monitoring and informing students of their progress and examination performance, including appeals procedures;*
* *promoting innovative practice in universities such as use of interactive video and expert systems.*

iii *Universities' mechanisms for quality assurance in relation to academic staff:*

* *assessing and monitoring academic staff;*
* *provision for staff development.*

iv *Universities' mechanisms for quality assurance in taking account of:*

* *external examiners' reports;*
* *students' views on courses;*
* *views of external bodies - professional accrediting bodies and employers etc" (CVCP-AAU, 1992:8).*

In a paper delivered at a Conference entitled <u>Qualifications for the 21st Century</u> which was held in Wellington, New Zealand in January 1992, Peter Williams repeated the oft-stated view that quality and standards are notoriously difficult words to define with precision. A complex definition may be accurate but useless for practical purposes, while simplistic definitions may encourage a reductionist and mechanistic approach.

Speaking in his capacity as Director of the AAU, Williams stated that we (the AAU) do not attempt to define prescriptively either quality or standards in higher education in terms of a single, universally acknowledged, level of provision or achievement.

According to Williams, the variety of types of universities and the differences which exist between them in terms of what they see themselves as being and doing, would render a single "gold standard" of that sort inappropriate. Its use would also make it impossible to audit consistently or fairly, he claims, and then concludes:

> *"In undertaking our audits, we acknowledge that quality and standards may properly be defined by institutions for their own purposes; our task is to understand and comment on those definitions, to discover the extent to which the universities' quality assurance systems are appropriate for the purposes they are designed for, and that they work effectively. So it is for each university to say what it means by its quality and standards, and to show how they are achieved"* (Williams, 1992:35).

The requirement stated above may not seem unreasonable or unusual, but the notion of a university, in its capacity as a qualification-awarding institution, addressing formally, systematically and rigorously, the questions of what are its institutional standards and what is its institutional view of the quality of its teaching, is, in most respects, comparatively new.

It has been suggested that good quality assurance systems do not necessarily guarantee good teaching or learning, and that these, conversely, can well exist without the need for elaborate quality assurance systems. However, good teaching and learning is more likely to flourish when matters of quality are seen publicly to be an important concern to an institution. If good quality teaching is formally acknowledged and exceptional quality rewarded, they will be seen to be worth the devotion of time and effort. A fully professional approach by university teachers to their teaching responsibilities (which is not as fully developed as it should be), may then evolve. When high quality teaching is found in an environment of institutional indifference, it is more likely to be patchy and sporadic, the preserve of the few, and certainly not the pervasive theme. The promotion of a fully professional approach by university teachers and institutional awareness of the need for formal, effective quality assurance mechanisms, are two of the initiatives undertaken by the AAU (Williams, 1991:6).

3.3.2 The Auditors

One of the first tasks of the Unit was the appointment and induction of a group of auditors, who were selected from an extensive list of nominations by Vice-Chancellors. The first group numbered fifteen, all serving academics, seconded on the basis of one-fifth of their time for two years. They were chosen on the basis of proven experience in quality assurance-related activities, geographical distribution, and subject spread (although the audit activity is centred on institutions rather than disciplines). A second group of nine auditors was appointed in March 1991 on a similar basis. Auditors were expected to visit seven to nine institutions during their period of secondment (CVCP-AAU, 1992:6).

As an exercise in the induction programme, auditors were invited to complete a "SWOT" (Strengths, Weaknesses, Opportunities, Threats) analysis of the current quality assurance scene in universities. The CVCP soon realised the need for an

aide-memoire for members of the AAU's audit team and this was provided in June 1991 in the form of "Notes for the Guidance of Auditors". These Notes indicate the range and depth of the audits, and the areas of interest with which auditors are likely to be primarily concerned. The Notes are neither comprehensive nor prescriptive (CVCP - AAU, 1991:1).

3.3.3   Academic Standards

For the purposes envisaged here, suffice it to state briefly the concepts contained in points 2 and 3 of the Notes:

The Unit's first term of reference speaks of "the academic standards which are necessary for achieving (the universities') stated aims and objectives" (CVCP - AAU, 1991:1). Universities, by virtue of their charters and statutes, are responsible for their own academic standards, and this is an important feature of their autonomy. Auditors should therefore take, as a point of departure, the institutions' own accounts of their aims and objectives which they will be invited to provide. These accounts should say something about the interpretation of the concepts of quality and academic standards, as currently applied within each institution. The Unit itself will not seek to make comparisons with a single, externally-imposed, "gold standard", or to define narrowly the meaning of "quality" in this context. It will relate what it sees, hears and learns of the universities' own declared intentions. However, in making its judgements it will also bear in mind where an institution stands in relation to those practices commended by the CVCP in its published reports on academic standards and quality (CVCP - AAU, 1991:2).

3.3.4 Quality Assurance

In point 3 the Notes remind the audit team to bear in mind the distinction between "quality assurance" and "quality control" in respect of university teaching and learning systems. Quality control is an operational function applied at all levels by an institution to its teaching activities, and is concerned, in

detail, with the way these are organised, undertaken and evaluated, in order to ensure fitness for purpose, an optimised use of resources, and the achievement of their identified goals.

Quality assurance, by comparison, is concerned with the way in which a university, in discharging its corporate responsibility for the programmes of study and qualifications it provides, satisfies itself that it has effective structures and mechanisms in place to monitor the quality control procedures employed, and that these promote the enhancement of existing standards.

The concern of the Audit Unit is the monitoring in turn of the structures and mechanisms of the institutions. The audits are not inspections, either of teachers, programmes of study or departments, nor are they validation exercises. Their purpose is to ask of institutions how they ensure that their own standards are adequate. Auditors seek from the institutions answers to the following general questions about the ways they approach the protection and enhancement of their standards and quality:

> "What are you trying to do?
> Why are you trying to do it?
> How are you doing it?
> Why are you doing it that way?
> Why do you think that is the best way of doing it?
> How do you know it works?"
> (CVCP - AAU, 1991:2).

3.4 More Recent Developments

3.4.1 The Higher Education Quality Council

As a result of the recommendations of a White Paper entitled Higher Education: A New Framework and published in May 1991 (HMSO - Cm 1541), the Higher and Further Education Act was passed in 1992. Chapter 5 of the White Paper related to "Quality Assurance in Teaching" and it summed up the new arrangements for

quality assurance in higher education, namely, the need to establish a single quality audit unit independent of the new Higher Education Funding Councils (HEFCs) (each of which has its own quality assessment unit).

These developments led to the closure of the CNAA and the AAU and the establishment in May 1992 of the Higher Education Quality Council which is funded by subscriptions from individual universities and colleges of higher education based on levies on the student numbers and money made available by the HEFCs.

The mission of the HEQC is to contribute to the maintenance and improvement of quality at all levels in institutions of higher education in the UK. By performing these functions it helps to assure the public, the funding councils and the government of the quality of higher education (Jacobs, 1993:43).

The services provided by the HEQC include regular auditing of institutional quality processes, assuring the quality of credit based approaches to learning and stimulating the enhancement of quality. The HEQC also advises the Secretaries of State on applications from institutions for degree awarding powers. It works closely with the quality assessment committees of the three funding councils for England, Scotland and Wales which are responsible for assessing teaching and learning in specific subject areas. The HEQC also works with professional and other accrediting bodies such as the NCVQ and BTEC in order to ensure that external demands on institutions are kept to the minimum necessary for adequate quality assurance.

There are three divisions for the main services, namely, quality audit, credit and access and quality enhancement. The Division of Quality Audit undertakes academic quality audits of institutions of higher education in order to ensure public accountability for the maintenance and enhancement of academic quality and standards. The process consists of three parts. Firstly, the briefing documentation is provided by the institutions stating the structures and processes used in order

to assure the quality of the educational arrangements. Secondly, this is followed by a visit from a small group of experienced auditors, and thirdly, a report is drawn up (Jacobs, 1993:43,44).

The auditors examine quality assurance procedures used in the design, monitoring and evaluation of courses and degree programmes, teaching, learning and communication methods, student assessment and degree classification, academic staff, verification and feedback mechanisms. The audit reports include a description of the quality assurance processes in place and the auditors' perceptions of their effectiveness, comment on areas of good practice and suggestions for improvement for consideration by the institutions. The reports are published and widely disseminated. A response on the actions taken on the reports is required from institutions.

The Division of Credit and Access enters into liaison with universities, colleges and other organisations in order to facilitate credit transfer by the development of systems for assuring the quality of portable credits and in order to ensure the quality of access arrangements to higher education. The Division is active in promoting credit and access initiatives in the UK and overseas. Its work includes developing ways of interlocking portable credits gained in the other sectors of education with credit based schemes in higher education. It also includes working with the private company, ECCTIS 2000, on the dissemination of information on credit transfer opportunities, developing the national framework for access courses, supporting a national project, reviewing credit transfer arrangements and collaborating with bodies such as NCVQ, SCOTVEC and BTEC (Jacobs, 1993:44).

The staff of this Division are regionally based in order to build close links at local level with institutions, employers and other relevant bodies. This also enables the Division to encourage, develop and maintain exchanges of good practice amongst the institutions.

The Division of Quality Enhancement helps institutions to maintain and enhance the quality of their educational provision. It undertakes activities which include the collation, evaluation and circulation of information on quality, the commissioning of projects, reports, conferences and workshops, networking with institutional staff engaged in quality development, working where appropriate with individual institutions, collaborating with other organisations committed to the enhancement of quality and contributing to the development of national policy (Jacobs, 1994:44).

The HEQC has a small budget which supports development projects. Work is in progress on new institutional guidelines for quality assurance, indicators of quality in academic programmes, the external examiner system, collaborative links between further (non-university) and higher education, personal/transferable skills and management for quality.

The functions and responsibilities of the former CNAA and the AAU were taken over by the HEQC. However, despite the fact that all universities were authorised to certificate their successful students, the Minister retains the right to re-institute an external CNAA type of organisation should the HEQC not succeed. The techniques of the AAU have been retained, that is, institutional or programme accreditation is not done, but the internal mechanisms for quality assurance within the universities are audited by visiting panels (Jacobs, 1993:46).

The credit accumulation and transfer scheme (CATs) formerly operated by the CNAA, is now distributed among various bodies. The HEQC establishes the framework for the recognition of credits, the Open University validates courses from other institutions for the purpose of credit transfer and a private company, ECCTIS, maintains a credit transfer equivalency data base of all validated courses. Since a central data base of credits for individuals is no longer available each university keeps its own records.

The HEQC audits are compulsory and are done on a five-year schedule. Audits aim at self-regulation, accountability and continuous improvement of quality and are based on self-evaluation studies and on the missions of the individual universities. The HEQC does not have prescribed standards and does not hold a view as to what should be done. However, it may point out weaknesses in the quality assurance mechanisms of a university.

Sixty audits are completed annually. Each auditor, who is an academic, audits three universities per year, each audit lasting five days. The auditors receive the self-evaluation reports beforehand. After the audit a report is submitted to the university in order to comment on its correctness. A final report is completed by the HEQC and made public. The academic audits of the HEQC must be distinguished from the programme quality assessments done by the HEFCs.

3.4.1.1 A Blueprint for Quality Assurance in Higher Education

In September 1993, Sir Malcolm Frazer, former chief executive of the CNAA and the HEQC, proposed a blueprint for the next stage of development of quality assurance in HE.

This blueprint is based on the need to debate quality assurance in HE more fully since the 1991 White Paper ("Higher Education: A New Framework") was written in haste and turned into law in less than a year. For this reason there was very little public debate on the proposals for quality assurance which were eventually incorporated into the Further and Higher Education Act 1992 (Frazer, 1993:16).

Frazer describes two principles and eight conditions upon which his blueprint is based. The first principle is that institutions of higher education are autonomous (Frazer, 1992:16). In analysing this concept, Frazer makes it clear that the first sentence of the chapter in the White Paper on Quality Assurance is of fundamental importance:

> *"The prime responsibility for maintaining and enhancing the quality of teaching and learning rests with each individual institution" (United Kingdom, 1991:24).*

Frazer emphasises the need to understand that quality begins at home and cannot be imposed from outside. He claims that it is only by rigorous self-evaluation that an autonomous institution can satisfy itself that it is meeting its responsibility for maintaining and enhancing quality (Frazer, 1993;16).

> *The second principle, claims Frazer, is that institutions must be accountable and this principle inevitably includes the concept of external scrutiny which provides credibility. According to Frazer, the quandary for HE is to find a proper balance between autonomy and accountability and the question remains: how do we reconcile public accountability with institutional autonomy? (Frazer, 1993:16).*

The conditions for the Blueprint include such aspects as cost-effectiveness, acceptability to the academic community, clarity of objectives, the inclusion of both institution and subject/programme levels, comprehensiveness in order to cover all aspects of HE, and compatibility with professional competence approaches by the NCVQ and SCOTVEC.

3.4.1.1.1 A Single Body

Frazer proposes that a National Council for Quality in Higher Education (NCQHE) be established and be owned by all institutions of HE. He proposes that the human and physical resources for the NCQHE would come from the HEQC and the quality assessment divisions of the funding councils, all of which would be disbanded. The quality assessment committees of the funding councils would be retained. The NCQHE would not be funded by subscription from the HE institutions, as is the HEQC, but by grant from Government through an annually negotiated contract (Frazer, 1993:16).

3.4.1.1.2 Audit of Institutions

The Blueprint proposes a full audit of the quality control/quality assurance (qc/qa) systems in all HE institutions at least once every six years. According to Frazer the audit would have three purposes:

> "(i)   to assist an institution with the regular self-evaluation of its qc/qa systems,
>
> (ii)   to assure those who are paying for, and those who are receiving education that the qc systems are operating effectively and therefore that there can be confidence that the standards the institution has set itself are being met (in addition, because of the greater mobility of students, this assurance is also needed by other institutions at home and overseas), and
>
> (iii)   to disseminate good practice about qc/qa systems" (Frazer, 1993:16).

The method of audit would be based on that currently in use by the HEQC, namely, selection and training of auditors, submission by the institution of details of its qa/qc systems and a self-evaluation of them, a peer review visit and the publication of a report.

3.4.1.1.3 Evaluation of Programmes

Complementary to audit at institutional level, and just as necessary, is external scrutiny of the quality of provision of the subject/programme level. There are two purposes, namely, identifying and disseminating good practice, and informing those who pay for, and those who receive, the education provided.

External scrutiny by the NCQHE at the programme level would be contracted out under licence to other bodies. Much of HE is already subject to external scrutiny for the purpose of

professional recognition or accreditation and this scrutiny is not likely to be abandoned. It is proposed that existing professional or accrediting bodies could apply to the NCQHE for a licence to evaluate the quality, and give advice on the standards or provision in its area. (Frazer, 1993:17).

3.4.1.1.4 Standards

Frazer believes that we must judge whether the achievements of the students are worthwhile and appropriate for the award being made. He believes that there should be more emphasis on standards of experience and achievement. This is why he proposes that the bodies licensed by the NCQHE should be designated Programme Standards Bodies (PSBs).

The NCQHE would require institutions to register all their sub-units with the most appropriate PSB. The basic requirement of a PSB would be to make an evaluation at six-yearly intervals of all the provisions in all the sub-units (departments/schools/ faculties/programme areas) registered with it. Institutions would prepare a report and self-evaluation. This would be followed by a peer review visit to most institutions which would also include scrutiny of examination papers and students' work. They would be required to provide thorough summaries of something as complex as the quality of a programme (Frazer, 1993:17).

3.4.1.1.5 National Archive

Frazer believes that in time, the NCQHE would become a national centre of intelligence with comprehensive knowledge of current and good practice on course design and evaluation, teaching, learning and assessment. It would also maintain and publish the register of external examiners, which is currently being established by the HEQC. Public availability of this information contributes towards accountability, but more importantly, it is there to assist institutions to maintain and enhance the quality of teaching.

Frazer sums up the basic philosophy thus:

> "*The essential idea is that external scrutiny leading
> to financial reward or penalty may have a part to
> play, but significant and lasting improvements in
> quality are better achieved by rigorous self-
> evaluation followed by appropriate actions.*
>
> *Self-evaluation is not easy, and that is why NCQHE
> would be there to support it and check that it is
> being done and is rigorous*" *(Frazer, 1993:17).*

Frazer concludes his constructive and provocative Blueprint
(provided as a discussion document) by adding that the NCQHE
would ensure that valid information about institutions and
programmes is available to all those who need it or have a right
to it.   The NCQHE would respect autonomy, assist with
accountability and provide services to institutions in order that
the highest possible standards were achieved by their students
(Frazer, 1993:17).

3.4.2 The Higher Education Funding Councils

Established in terms of the Further and Higher Education Act in
1992, the HEFCs for England, Scotland and Wales assumed
responsibility for funding all higher education institutions.

Their mission is to promote the quality and quantity of learning
and research in higher education both cost effectively and with
regard to national needs. The HEFC for England, for example, has
established three sections, one of which is a Quality Assessment
Committee to advise on the Council's statutory duty to secure the
provision for assessing the quality of education.

The HEFC for England (HEFCE) bases its quality assessment by
academic peers on a brief self-study report on the particular
programme. The HEFCE selects the programmes to be evaluated each
year.   In 1993 the programmes in the Departments of Chemistry,

Law and History were selected for evaluation.

The university or higher education institution makes its own judgement on the quality of a programme to be evaluated. The peers then make a separate judgement and if the quality is found to be either excellent or unsatisfactory, the institution is visited for three days.

3.4.3 Summary

These developments during the last few years, indicate just how rapidly the HE system in the UK has responded to the call for accountability which relates to standards and quality. Few HE systems in the world have developed quality assurance procedures which are as simple and effective, yet sophisticated, as those initiated by the CNAA, refined by the AAU, and finally implemented by the HEQC and the HEFCs.

REVIEW OF CHAPTER FIVE

What emerges from this brief analysis of the HE system in the UK is its dynamic nature as well as an awareness of the need for an orderly, structured system which nonetheless allows a measure of freedom, originality and innovation.

A strong message emerges from most documentation and articles on HE in the UK, namely, that a system should not inhibit the imaginative and creative efforts of individuals and/or individual institutions. Another clear message from the UK is provided by the strong links, forged at all levels of HE, with industrial and commercial leaders. It behoves those in HE in the RSA to consider establishing such links on a sounder basis and to achieve the measure of co-operation which many technikons and some universities have achieved.

It is very clear that if any HE system in the world warrants more careful attention then it is undoubtedly that of the UK system since it has a depth and consistency of standards/quality which few others have achieved.

CHAPTER SIX

ASPECTS OF STANDARDS AND QUALITY IN HIGHER EDUCATION IN THE USA

FOREWORD

The public and educators in the United States have probably expressed more concern during the last twenty years over the issue of standards and quality in education than any other nation on earth. This concern has applied as much to the higher education sector as it has to all levels of education and the perceived decline in standards at colleges and universities has given rise to much comment.

The philosophical assumptions underlying higher education in the USA have been analysed in this chapter insofar as they impinge upon standards and quality. The references to the Coleman Report dating back to the mid-1960s remind one of the lessons to be learned from the past and how strongly the social milieu can influence the quality of the educational environment in educational institutions.

The problems experienced in the thrust towards egalitarianism in higher education feature in this section. Inevitably a number of conflicting views arise on both sides of the equality issue as it relates to affirmative action and its impact on standards.

Since the higher education system in the USA is the largest in the world and because its problems are also experienced by South Africa and other countries too, it behoves us to learn what we can from this diverse and complex system.

1. THE ISSUES

A brief extract from the Report in 1983 by the National Commission on Excellence in Education in the United States, clearly indicates the level of concern about educational standards which is being experienced in the USA and in many parts

of the world:

> *"Our Nation is at risk ... We report to the American*
> *people that ... the educational foundations of our*
> *society are presently being eroded by a rising tide of*
> *mediocrity that threatens our very future as a Nation*
> *and people ... If an unfriendly power had attempted to*
> *impose on America the mediocre educational performance*
> *that exists today, we might have viewed it as an act of*
> *war. As it stands, we have allowed this to happen to*
> *ourselves ... The people of the United States need to*
> *know that individuals in our society who do not possess*
> *the levels of skill, literacy, and training essential*
> *to this new era will be effectively disenfranchised*
> *..."* *(National Commission, 1983:5,6 & 7).*

Since the publication of this federal report, a number of major studies have appeared, and the nation's press has been filled with reports of attempted reform from across the US. An examination of the essential problems of educational standards reveals a number of deeply conflicting opinions that exist within the educational community and the public at large regarding the nature of those standards.

The thesis of this chapter is that, due in large but not complete part to the "student revolt" of the 1960s and the emergence of a "new egalitarianism" in the 1970s , higher education has misplaced its central purpose. In consequence, its academic standards have suffered to the point in the 1980s where it was stated, "Our nation is at risk". This public concern has continued into the 1990s.

If the definition of quality as equalling fitness for purpose is acceptable, and it would appear to be a fair working definition, then the issue of purpose becomes very important. One could therefore state that any view of academic standards is clear only when illuminated by the light of the purposes of education, for standards in education are the criteria by which we assess how

well students, academic staff, and schools are realising the purposes of educational institutions.

It is not at all too abstract or "too philosophical" to say that the most persistent, contaminating problem in higher education in the US today is that the earlier consensus about its central purpose has collapsed. Confusion about purpose has entailed disintegration of academic standards in the admission, curriculum, instruction, evaluation, retention and graduation of students (Burns, 1985:80).

This is a serious problem because there is an inescapable relationship between the kind and quality of education and the kind and quality of society we shall have. There is an organic and causal relationship between standards of achievement in education and the preservation of a free society in a highly complex, technological, interdependent, and nuclear world. The disintegration of purpose, and, in turn, of academic standards is no mere "academic" problem. A failure to re-establish appropriate purposes and standards means not only the failure of education but social, political, and economic failures of such magnitude as to endanger the existence of a free society.

According to Hobert Burns in a book published by the Institute for Contemporary Studies in San Francisco:

> *"Collapse of any primary social structure, political, economic, or educational, cannot accurately be attributed to any single cause or reason; and the definitive analysis of the loss of central purpose in higher education is yet to be made. Even so, it is possible to identify some of the principal conditions and events that contributed to the present confusion and debilitated condition of higher education" (Burns, 1985:80).*

The "knowledge explosion" of the post-World War II decades continues to be a significant factor, even in the 1990s, as it

creates legitimate demands for continual changes in curricular content, often requiring new academic priorities and so complicating the stability of consensus about central purpose.

The unprecedented growth in higher education enrolment in the quarter-century following World War II led not only to the expansion of existing colleges and universities but to the creation of new ones. This expansion involved huge increases in the size of academic staffs and also often resulted in academic staff compositions in which the majority did not participate, and were therefore less committed, to the earlier long-standing consensus about the central purpose of higher education. Indeed, many academic staff members rejected the carefully, narrowly focused ends of education and the high standards required as means to those ends, not only for their students but for themselves. As George Will expressed it in the San Francisco Chronicle a little uncharitably:

> "Many faculty members were on campus because the education boom (of the 1960s) made the academic job market undemanding ... they were bored by scholarship, and their self-esteem and comfort were threatened by traditional academic standards. So they had powerful incentives to demote those standards" (Will, 1982:8).

Those standards for academic staff members, principally involving the requirements for scholarly activity and research ("publish or perish"), were not so much denigrated in themselves as subjected to benign neglect on the ground that, in non-elite institutions at least, teaching was the first, most important, and perhaps the only priority. Although teaching is important, it is also less easily evaluated than scholarship and there is no convincing evidence that neglect of scholarship improves teaching or that attention to scholarship harms teaching (Truman, 1966:xi).

Additionally, the growth in demand by students for higher education - involving the enrolment of hundreds of thousands of

those who might well not have gone to college under the socio-economic conditions that existed prior to the 1940s - forced many states to divide the task among universities, state colleges, and community colleges. This tripartite arrangement did result in different (and often differing) missions among the segments. This also caused a set of values and commitments that made consensus on a common, central purpose and appropriate academic standards, more difficult than ever.

But no single event conduced to the disintegration of purpose, and thus of standards, in higher education in the US as much as the "student revolt" from the late 1960s to the early 1970s. As Martin Trow described it:

> "The constant attacks on universities for their 'irrelevance', their neglect of students, their 'institutional racism', their implication in the war in Vietnam and in the 'military-industrial complex' have deeply shaken the belief of many academic men in their own moral and intellectual authority. Many ... no longer really believe they have a right to define a curriculum for their students or to set standards of performance, much less to prescribe (as a central purpose of higher education) the modes of thought and feeling appropriate to 'an educated man'" (Trow, 1970:35).

The cry for 'relevance', following the erosion in consensus of purpose, rather rapidly resulted in the reduction or abandonment of normal standards for student admission, evaluation, and retention. It also led to the reduction or dismemberment of curricular requirements, not only in general and liberal education but in academic majors (with exceptions, of course, generally in the sciences and science-based professions) at both the undergraduate and postgraduate levels, as well as to the proliferation of new and, what could be described as, unique, courses.

In many of the colleges and universities much of the curricular structure was built up over many decades. The structure consisted of certain course requirements, specifications and prerequisites designed to yield scope and sequence and focus upon a set of curricular priorities based on a consensus about the central purpose of higher education. Such a structure was in greater or lesser degree dismantled by the academic staff, with the consent of the administration, in favour of curricula that had courses or other "delivery systems" characterised as new, innovative, responsive, pertinent, and relevant (Burns, 1985:83).

It was a fundamental change, based mainly on the elective principle in which students had almost unlimited opportunity to choose the courses, and the kinds of courses, they wanted in order to serve their own purposes from an increased number of course, instructional, and curricular options. In an article on "The Laissez-Faire University", Samuel Hux wrote at that time:

> "The older universal requirements were dropped. In their stead: either no requirements save a course in composition, or (the cafeteria curriculum). Since it is practically impossible ... to accumulate 120 credits over four years without sampling the cuisine in some scattered fashion, the (cafeteria curriculum) is, for all intents and purposes, no requirements".

> "This was called 'cultural pluralism'. It was not, however, anything so well thought out as that term suggests; it was an unmanly throwing up of the hands ..." (Hux, 1977:41).

The elective principle, extended so far, convinced many that it necessarily undermines the interrelationships of knowledge, the epistemological wholeness that should characterise higher education. Thus there appears to be a growing agreement amongst academic staff during the 1980s and early 1990s, that recent college and university graduates are less prepared than students of an earlier generation who completed a more structured curriculum with more rigorous standards.

While it may not be defensible to state that the replacement of structured, prescriptive curricula by a relatively unstructured, piecemeal, elective curriculum produced the decline in student knowledge and skills, there is no doubt that there have been consistent and dramatic deficiencies in student academic achievement. These deficiencies are said to be, in large part, the result of lowered academic standards, as most dramatically illustrated by "open admissions" and "grade inflation", which are largely the creatures of a new egalitarianism in higher education (Burns, 1985:84).

1.1 The New Egalitarianism

Writing in Newsweek, Thomas Sowell has said that "equality" is one of the great undefined terms underlying much current controversy and antagonism. That one confused word, he suggests, might even become the rock on which our civilisation is wrecked. According to him, it should be defined (Sowell, 1981:13).

However, there is no meaning of "equality" to which all would subscribe. The meaning of "equality" is not as clear as the new egalitarians would have us believe, as they assume that "equality" means "identicality" (eg equal rights means identical rights). The new egalitarian morality thus requires society to make uniform, to level, those differences by placing artificial restraints on some and providing special treatment for others. The contradiction in such a thesis is soon noted: in the name of equality, inequalities are justified. Equality as identicality can only refer to the civil and political rights we assign ourselves, individually and collectively, in a social compact. It cannot possibly refer to individual skills, abilities, interests, potentials, efforts, or achievements for none is equal in those respects if by "equal" we mean "identical".

John Gardner, himself a passionate defender of equality, who feared the dangers of the new egalitarianism, was well aware that an egalitarianism:

"... which ignores differences in native capacity and achievement, has not served democracy well. Carried far enough, it means the lopping off of any heads which come above dead level. It means ... the individual smothered by the group. And it means the end of that striving for excellence which has produced mankind's greatest achievements" (Gardner, 1961:15).

Egalitarianism in practice often results in a sameness that can only be called mediocrity, a mediocrity that breeds more of the same.

1.2 From Mass to Universal Higher Education

The new egalitarians believe a certain set of values based on certain assumptions. Firstly, if universal elementary and secondary education are right, necessary and good, then universal higher education is right, necessary, and good. Secondly, just as some Americans - due primarily to those accidents of race, colour, and national origin - have been denied their right to elementary and secondary education, so, too, have they been denied their right to higher education. The open admissions policy in higher education is an effort to fulfil that ideal.

That ideal was implemented, not for the first time in American higher education but certainly in the most dramatic way, at the City University of New York (CUNY). CUNY was known as the institution that for decades had selected students from the immigration melting-pot that New York City has always been and, by offering an excellent education with high standards, helped the underprivileged but talented, to enter and achieve academically (Gallagher, 1974:204).

Prior to open admissions CUNY repeated the same error as the public higher education system in California had done, namely, admission was determined by rank in high school class. In California this had effectively guaranteed that black enrolments would be minimal. Similarly at CUNY the manifest unfairness of

an admissions policy that penalised black and Puerto Rican students because the lower schools had not adequately prepared them for success, was realised and steps taken to correct the situation.

Open admissions to CUNY began in 1970, after it had been forced to close for three successive spring semesters due to racial rioting, and the doors to the university were thrown open (Wagner, 1976:130).

Four years later, after only 110 students graduated out of 3 687 who would not have been admitted except for the open admissions policy, it became clear that universal higher education as implemented through this policy at CUNY had failed. The lowering of standards had not contributed to the educational benefit of those for whom it was designed nor to the institution. Open admissions solved the political issues of that time which precipitated the action but it did not solve the educational issues since in 1976 CUNY ended the policy. But not without serious academic consequence, for, as John Silber observed:

> "CUNY did not ... return to its earlier admissions standards, but instead established as the minimum qualification for admission the competence expected of an eighth-grade education ... While prospective students at CUNY must now have reached an eighth-grade level, they must also be high-school graduates - so, in theory, they must also have attained a twelfth-grade education. Implicit in the admissions standards of CUNY is a one-third devaluation of the New York high-school diploma" (Silber, 1977:22).

Despite the debacle at CUNY it should be pointed out that a policy of open admissions per se was not at fault. For a number of years many state universities had been required to admit all state residents who applied and met the admissions criteria. Even today almost a quarter of all four-year public colleges and universities must, by state requirement, admit every high-school

graduate who applies. The CUNY case was due not so much to the throwing open of the doors but to the throwing out of admissions standards based on academic achievement. The crucial distinction is between the admission of all, and the admission of all who are qualified, and the crux of that distinction lies in the definition of appropriate standards for admission and retention.

The presence in colleges and universities, including community colleges, of so many students lacking the fundamental skills which are needed to benefit from higher education has inevitably led to an increasing amount of remedial instruction in institutions of higher education. Contradictory as that concept is, paradoxical as it may seem, the solution to the problem is neither easy nor within the grasp in the immediate future (Burns, 1985:90).

Educational policy is not, and cannot be, set independently of larger social issues. If the new egalitarians' proposed social policy of universal higher education has been shown to be infeasible, neither is it feasible in the short term to restrict the American commitment to mass higher education only to those who are qualified on sound academic standards. The sudden re-imposition of truly defensible standards of secondary achievement as prerequisite to admission to colleges and universities would eliminate large numbers of ambitious and inherently able students, including many from minority populations, and social policies will not now tolerate that even in the name of academic quality.

Remediation in higher education of student defects from elementary and secondary education, though highly controversial, is likely to remain a feature of collegiate curriculum and instruction for some years to come, if the lower schools are not reformed. The argument for remediation is powerful: if institutions of higher education admit, for reasons of social policy or not, students who are deficient in the knowledge and skills required, then those institutions have an obligation to provide the needed help. Any historian of American education

will have to concede, albeit reluctantly, that collegiate level remediation of defects for admission is about as old as American higher education itself.

However, the arguments against remediation are equally convincing. The very rationale for higher education, the pursuit of advanced learning based on adequate secondary school preparation, is disrupted, perhaps seriously, if the failed tasks of elementary and secondary schools are passed along, with their deficient students, to colleges and universities. Remedial instruction thus perverts the mission of the university; it forces the academic staff to offer instruction at a level far below that at which they were employed to teach. It corrupts the curriculum for non-remedial students since intellectual and other resources devoted to remediation are drawn from the normal courses of instruction. It debilitates the scope and quality of education throughout the entire institution, contributing to the further loss of central purpose and the further decline of academic standards. Moreover, it is inordinately expensive to do in college what should have been done in the lower schools (Burns, 1985:92).

The egalitarian pressures for open admissions, remedial instruction, and the retention of students who under traditional standards would have failed, have combined with those other conditions, noted earlier, to contribute to the phenomenon known as "grade inflation".

1.3 Grade Inflation and Achievement

Inflation is a familiar word - it seems that everything is going down in value, and up in price. Education is no different. A student is rewarded for performing his job, not with money, but grades. Due to grade inflation, a student's reimbursement is clearly worth less. Implicit in this generalisation is the presupposition that grades have risen without a correlative rise in student achievement, that grade inflation reflects the deflation of academic standards (Asiano, 1981:1).

There is no single or simple explanation for the inflation of grades. The causes are multiple, interrelated, and often confused. The references earlier to academic staff in some institutions having lost confidence in their right or ability to set rigorous standards of achievement, combined with demoralisation, cynicism and lack of caring, indicate some of the reasons for grade inflation. Some of the other reasons can be listed as follows (Burns 1985:95):

- The increase in such evaluative techniques as pass/fail or even pass/no grade; of courses and programmes of non-academic activity (eg athletic cheerleading, election to student government) that receive academic credit and grades tend to subvert the value of academic effort and achievement.

- The ideological commitments of some academic staff (eg during the Vietnam War that no male student should fail lest he be drafted) and of some institutions (eg that the admission of unqualified students entails the obligation to provide them with special consideration until they "catch up") has contributed to grade inflation.

- Recent decreases in enrolment, which by most resource allocation policies result in decreases of teaching posts, have led to fears that rigorous standards of achievement and grading would drive students away to "easier" departments or even other institutions, and this has contributed to the continuation of grade inflation. As the National Commission on Excellence in Education says:

  "In some colleges maintaining enrolments is of greater day-to-day concern than maintaining rigorous academic standards" (National Commission, 1983:14).

- The "spiral down effect" is at work too: many members of the academic staff who regret and resent grade inflation, feel that maintenance of their own higher standards will

work to the disadvantage of their students - that their
students will be penalised when compared with other
students getting "easier grades" - so they tend to ease up
in an attempt to be fair to their students and find some
equal level. But an equal level in higher education always
proves to be a lower level, and this contributes to grade
inflation.

- There are some members of the academic staff, one hopes
  very few, who are not as competent as they might be, either
  in their own subject speciality or in their teaching. Such
  people are unable to distinguish among levels of
  achievement and therefore assess all students generously
  (Brauner & Burns, 1965:102).

Although the events of the 1960s and 1970s in higher education
in the USA have been over for many years, they have left a
festering sore through the wounding of academic standards.
Speaking of those days, Peter Burger wrote:

> *"The less visible - but much more consequential -
> change has been a pervasive softening of academic
> standards. The abolition of required courses, the
> statistically demonstrable inflation of 'A' and 'B'
> grades ... these and similar developments ... are
> where the long-range effects of those days must be
> sought"* (Burger, 1972:56-58).

In this article in US News & World Report (December 4, 1972),
Burger wonders whether it is too late to rebuild into higher
education the objective standards and criteria of evaluation
instead of the then fashionable chaos of subjectivity. He
advocates respect for hard intellectual labour instead of the
cult of self-expression and "creativity". One might well enquire
whether Burger's questioning of the 1970s might not be applicable
also to the 1990s!

If it is too late and if grade inflation - which is no more than

the reluctance of teaching staff and their institutions to differentiate meaningfully among individual students on the basis of their academic achievements - is to be permanently accepted, what does it mean?

At least it means the refusal of colleges and universities to continue to serve as the socially sanctioned sorting or selecting or certifying agencies for society. If that is a little too harsh it is nevertheless reasonable to conclude that better grades and the grade point averages (GPAs) derived from those grades are the principal means of serving the socially commissioned role of selection. If that role continues to be contaminated by grade inflation, then all - students, teaching staff, higher education, and society - suffer. Writing in 1975, and using words which seem appropriate to the 1990s, Edward White states quite bluntly:

> *"The problem is not merely the familiar 'decrease in standards' or 'inflation of the grading system' ... The problem is that a major function of higher education is openly based on fraud: Important decisions about people's lives are made all the time on the basis of an accreditation system that cannot be trusted ... No one from the outside, looking at a student's grades, can have any real idea of what they mean" (White, 1975:24).*

The question which has to be asked, in the US or in any country, relates to the price to be paid if higher education neglects or spoils the sorting and selecting task. Many educators believe that behind the egalitarian cliche lies a profound conflict of interest which should be relentlessly exposed. Such conflict of interest has to do with concepts of authority, responsibility, and accountability and the egalitarian thrust is aimed, if not deliberately nonetheless effectively, at those concepts. It has led to the diminution, sometimes voluntary, sometimes not, of teaching staff authority (Silber, 1973:12).

The responsibility to evaluate achievement - to grade - is a fundamental issue and it seems appropriate to restate the main purposes of grading. Firstly, grades tell a student about the quality of his achievement, or lack thereof, and the relationship of his work to that of other students; they let a student know in honest terms where he stands. Surely not to do so, or to mislead students by declining to make such judgements or to disguise them, harms students most of all. Secondly, those judgements, recorded on transcripts, indicate something of value to others, within or outside the higher education institution, who must make other decisions or judgements about an individual's qualifications - the sorting and selection process so essential to progress within both higher education and society (Kenny, 1975:5).

Those purposes are denigrated by the inflation of grades because such inflation diminishes the student's ability to profit from his undergraduate education by coming to a better sense of himself and his particular intellectual qualities. It further undermines the utility of the grade record to others, and thus tends to negate the benefits that many naïvely assume flow automatically from a "good transcript".

An obvious conclusion from the aforegoing is that there cannot be academic standards for students if there is no grading or if grading is relative to effort alone or to egalitarian social policy rather than individual achievement. Academic institutions that cannot or will not make such distinctions must eventually suffer because there is a functional connection between academic standards and the health of higher education which is in large part dependent upon the academic standards that guide the activities, the life, the very being of colleges and universities.

If that is so then the decline of academic standards, as most clearly illustrated by inflated grades based on policies or practices that fail to discriminate among levels of student achievement, signals a fundamental corruption of higher education and a betrayal of its duty to society.

Most people in the USA are certainly not willing to settle for what John Gardner once called "an amiable mediocrity" (Gardner, 1961:74).

Many years ago a well-known scholar and politician, Daniel Patrick Moynihan, stated:

> "If egalitarianism lies deep in the American character, so does competitiveness ... There is precious little evidence that any significant portion of American opinion, much less the public at large, desires that high standards - based on competition - be reduced ... There exists no populist groundswell in favour of abolishing standards of academic excellence" (Moynihan, 1977:8).

The thrust of the 1980s and 1990s in the USA confirms Moynihan's opinion and has seen a turning onto the path towards sound academic purposes and defensible academic standards. The first steps towards repairing the damage have been taken and this includes the recognition and discussion of the problem.

Any attempts at improving standards in higher education must be done concurrently with improvements at elementary and secondary levels. It was also recognised that if higher education is to help itself it must reinvigorate and improve - dramatically - the teacher education curricula and standards of admission to such colleges or programmes. This point is succinctly summarised by Martin Trow when he points out that:

> "The problem has many dimensions, but perhaps the most critical is the quality and morale of the teaching profession itself. From 1972 to 1980, SAT verbal scores for college-bound high school seniors planning to major in education dropped from 418 to 339, a loss of 79 points, while the SAT math scores in that population dropped 31 points, from 449 to 418. This is a much steeper decline than the national average

for the SAT over the same period ..." *(Trow,*
1985:194).

It is quite evident that none of these improvements in the 1980s
and early 1990s could take place without the injection of vast
amounts of monetary and human capital in all levels of education
in the USA. However, a taxpayers revolt during the last decade
in some states upset this necessary action and especially in
higher education there has even been a relative reduction in
expenditure. The question still remains whether higher education
has at last refound its central purpose? Many, including this
author, would suggest that this is not the case and that the
revitalising of academic standards has only been sporadic in
isolated areas.

1.4 The Coleman Report

In 1966 the Coleman Report - the largest and perhaps most
important educational study ever conducted in the United States
- was published. Like the historic report A Nation at Risk
(1983), the Coleman Report shook the very foundations of
education in America and prepared the way for major changes in
education.

Although this report related specifically to elementary and
secondary schools, the principles analysed and its findings
inevitably impinged upon higher education. Many contend that
much can be learned from this report even though more than a
quarter-century has elapsed since its publication.

During the early 1960s, equal educational opportunity was
becoming a major topic of debate nationwide in the US. A
provision of the Civil Rights Act of 1964 instructed the US
Office of Education to conduct a survey to determine the lack of
availability of equal educational opportunities for individuals
by reason of race, colour, religion, or national origin in public
educational institutions. James S. Coleman was selected to head
a team of researchers that obtained data over a two-year period

from over 4 000 schools, 60 000 teachers, and 570 000 scholars. The result was presented in 1966 in <u>Equality of Educational Opportunity</u>, commonly known as the Coleman Report.

Coleman and his associates began looking into variables that may affect academic achievement. For example, physical facilities, length of school day or year, whether pupils had attended kindergarten, pupil turnover, teachers' salaries, the kind of colleges teachers attended, whether teachers held advanced degrees or not, and whether teachers were black or white, were a few of the variables examined.

Much to the surprise of many, Coleman and his colleagues discovered that no particular school characteristic had a measurable positive impact on pupil achievement. The only characteristic that showed a consistent relationship to academic performance was the social class of the pupil body. In essence, children from middle- and upper-class homes did better than those from disadvantaged backgrounds.

> *"One implication stands out above all: that schools bring little influence to bear on a child's achievement that is independent of his background and general social context; and that this very lack of an independent effect means that the inequalities imposed on children by their home, neighbourhood, and peer environment are carried along to become the inequalities with which they confront adult life at the end of school" (Coleman, 1966:325).*

According to Coleman, individual academic achievement was dependent on a school's social composition; a pupil was influenced most by his or her classmates' social class, status, background, and aspirations, rather than by their race.

The Coleman Report aroused considerable controversy in its time. One comprehensive analysis was undertaken by Daniel P. Moynihan and Frederick Mosteller who spent three years collecting

critiques of the report. Eventually they published their conclusions in 1972 and found that the Coleman study was an accurate reflection of American education, once again reiterating the validity of Coleman's research. Christopher Jencks (1972) analysed many of the variables in the Coleman Report several years after its publication and essentially confirmed Coleman's findings.

J.M. Stephens (1967) had previously carried out a similar analysis, comparing reviews of research on the relative effectiveness of different factors, methods, and procedures (including size of class and school, individualised instruction, ways of selecting and training teachers, ability grouping, discussion vs lecture, group-centred vs teacher-centred approaches, the use of television, and programmed instruction). He reached the same general conclusion as both Coleman and later Jencks: essentially the same results were obtained regardless of the approach, that is, regardless of these particular school characteristics.

In many ways the Coleman Report was discouraging news which explains why the US Government Printing Office discontinued publication shortly after its initial printing. One could argue that all one had to know was the socio-economic level of the children and you had a very good indicator of what kind of academic achievement was taking place. Educators also became discouraged by Stephens' findings that no one method of teaching is better or worse than another. It should be noted, however, that the research on effective schools, such as that done by Edward Wynne (1981), served to bolster the morale of teachers in terms of how schools and teaching affect academic achievement.

However, regardless of how much disillusionment the Coleman Report may have introduced, the fact still remains that ultimately academic achievement is primarily a function of conditions beyond the school's control. This was true when Coleman discovered it in 1966 and many would argue that it is equally true in the 1990s and that the principles apply also to higher education.

When one asks what should have been learned from the Coleman Report, it is interesting to note an article by James W. Towers published in 1992 in which he presents some strong views. Firstly, he urges all educators and the public in general to think differently about education and to consider it a privilege and not a right. It is not merely an exercise we must endure in order to obtain a piece of paper. Parents and educators should instil in children a reverence for the opportunity to attend school. In addition the media should stop belittling the schooling process (Towers, 1992:138-140).

The Coleman Report clearly stated that the attitudes and values pupils learn from home, their peers, and the environment are more dominant in their lives than the attitudes and values learned in school. Towers urges that by the giving of a mind-set to children that schooling is a privilege, a gift to be cherished, educators will be able to do a far better job of educating. As this fundamental attitude is instilled, in turn, academic achievement (quality) will improve.

Secondly, Towers urges support for the "school choice" initiative. This means that parents and pupils can choose which school to attend, regardless of which school district the family lives in. If a pupil who comes from a disadvantaged background is serious about getting a good education, then that pupil should have the opportunity to attend a school in a more affluent area because the evidence shows that the pupil is likely to achieve academically at a higher level. School choice is clearly a logical outcome of Coleman's study of the socio-economic level of the school's pupil body, contends Towers.

Finally, states Towers, educators should stop feeling guilty about the relentless reports that American education is failing. The public should also stop blaming the schools for all educational woes. The dominant influence according to Coleman, lies outside the school's jurisdiction. It lies for the most part in the pupils' home life, peer relationships, community, and general environment, not within schools themselves. Therefore,

if academic achievement is declining across the nation, why should educators take the blame for problems often beyond their control? According to Coleman, academic achievement in decay is the result of a decaying society, not necessarily decaying schools. Although educators must be held accountable for pupil learning - to a degree - the public must understand, claims Towers, that schools can only be as effective as the homes, communities, and environments in which students live (Towers, 1992:138-140).

The message of the Coleman Report, in sum then, is briefly: that schools can and will continue to be only as effective as the larger society of which they are a part. Schools mirror society, and if the schools are to become better, then society must improve as well. However, changing an entire society is a big task, and it will eventually change, for better or worse, in its own time.

REVIEW OF CHAPTER SIX

The lessons to be learned from a brief analysis of the situation prevailing in higher education in the USA are numerous. Their application to the scene in the RSA provide an interesting challenge which is undertaken in the next chapter.

The chapter on the USA makes one aware of the need to take careful cognisance of the trends set in this vast higher education system. The need for selective and sensible eclecticism becomes very clear since much of value can be gleaned and adapted to the different circumstances prevailing in the RSA.

The terrible words "a rising tide of mediocrity" which were published in 1983, shook the American public, and particularly the educators, to the core, and this chapter has attempted to indicate some of the major concerns which have resulted from this dire warning. The next chapter will inevitably address similar issues and provide some possible solutions in a very different milieu.

CHAPTER SEVEN

STANDARDS AND QUALITY IN HIGHER EDUCATION IN THE REPUBLIC OF SOUTH AFRICA

FOREWORD

This all-important chapter, in which a model for the RSA is anticipated, is the culmination of the preceding chapters and the broad analysis which they described.

The selected review of the international scene in leading countries such as the UK and the USA, earlier in this study, helps to place the RSA in an appropriate higher educational context and makes a model more meaningful.

The differences which exist in the RSA highlight the fact that choices must be made. The RSA can opt to be compared with, and judged by, international norms relating to quality and standards, or it can revert to, and remain within, the African or Third World context. Should it opt for the second choice it will certainly be relegated to a lesser role in the world community of higher education.

This chapter essentially summarises the existing situation pertaining to higher education in the RSA and explains what preceded the decade of the nineties. It also projects into the future and examines what steps must be taken in order to ensure the maintenance of standards and quality and the enhancement of quality control measures.

1. DEFINING KEY TERMS WITHIN THE CONTEXT OF THE RSA

In the light of the aforegoing attempts at defining, explaining, analysing and qualifying what standards and quality in higher education really amount to, it is appropriate to provide definitions which are apposite for this decisive chapter.

The following definitions and remarks are clearly an amalgam of the views of many authoritative writers in this field. However, they are original in the sense that they have been adapted and interpreted in a particular way in order to achieve an understanding of the peculiar and different set of circumstances which apply to higher education in the RSA.

What emerges from this study is a remarkable set of similarities with other national systems since certain patterns of development in higher education in the RSA are closely allied to those in, for example, the USA, UK, Australia and parts of Europe. A classic example of this statement would be the current educational desegregation attempts in the RSA which closely resemble some of those which occurred with minority groups in the USA in the 1950s and 1960s.

An equally remarkable set of dissimilarities exist in that the RSA is undoubtedly vastly different in a number of ways. The issues of language medium, religion, historical and prevailing apartheid, economic structure, geographic location, and a host of other aspects, are exclusively Southern African and require solutions which have probably not been mooted elsewhere.

Despite the complexities surrounding higher education in the RSA the following qualifying statements may help to clarify the usage of terms such as "quality" and "standards".

1.1 Defining Quality

For the purposes of this chapter "quality" in higher education is explained thus:

> *Quality is defined as "fitness for purpose" with the customers/beneficiaries indicating the purpose and the educators providing the fitness. Put more precisely, this means the specifying of worthwhile educational goals/objectives and enabling students to achieve them.*

In deciding what is "worthwhile", academic standards, the requirements of employers, the aspirations/needs of students, the expectations of society and the controlling bodies, all need to be accounted for in a greater or lesser degree. There are therefore many valid interpretations of "worthwhile".

Enabling students to achieve their chosen goals/objectives involves creating an effective learning environment. This can partly be achieved by choosing and using different media appropriately, by building on successful experience and by applying the results of recent research findings on "how students learn" (eg Ramsden, 1987:275-286; Parsons & Meyer, 1990:323-334).

In engineering and a number of other disciplines it is helpful to develop a simple taxonomy, comprising knowledge (information which has been memorised and can be recalled); skills (things people can do, whether intellectual or manual, or personal, without thinking too much about how to do them); understanding (the capacity to deploy abstract concepts effectively); and know-how (the lessons of experience) (Sparkes, 1993: 12).

This categorisation is helpful since each kind of learning experience demands different teaching and evaluation methods. Quality assessment therefore involves judging whether the teaching offered and assessment methods used, match the stated learning goals and objectives. This in turn requires that teachers/lecturers, students and assessors need to know what is required of them.

> Quality is also a measure of the success with which a technikon/university/college achieves the standard of service it sets itself by managing effectively the process of providing the service. Linked to this is the question of "quality assurance" which means being certain, or assured, that the process of providing a service is always going to achieve the standard.

The essential elements of a quality assurance system include the following:

* Responsibility for ensuring quality is devolved to the lowest possible level in an organisation because they are usually the only people who can ensure that quality is achieved.
* Such front-line staff (eg. lecturers) are trusted to ensure that the service they provide meets the organisation's standards and that they keep evidence (records) that they have done so.
* The organisation internally audits the records regularly so that it can be certain that the quality of service is being maintained throughout, at all times.

1.2 Defining Standards and Quality Assurance

Standards are levels of attainment in student assessment which are generally agreed among those most interested in the performance of those who have studied. In many disciplines educators are currently trying to ensure that there is a better match between assessment methods and those learning goals/objectives which are most commonly expressed. At present, the performance required in examinations rarely matches these learning goals very well. Only when they do will good student performance provide evidence of quality in teaching.

Quality assurance refers to the set of procedures by means of which quality, however it is defined or interpreted, is being maintained or improved. BS5750 (British industrial standard of quality) is one approach which is appropriate or its equivalent in the RSA, to the manufacturing industry, and to some service industries. However, it is quite inappropriate in higher education because of the

terminology which it uses. Despite this fact it is possible to adapt some of its procedures to education with beneficial results. Total Quality Management is another form of quality assurance which is much less specific and demands a wholehearted commitment from the most senior staff if it is to be effective. It has been said that "if BS5750 is the law, TQM is religion" (Sparkes, 1993: 12).

These three aspects of higher education, namely, quality, standards, and quality assurance, are quite distinct and the assessment of an institution requires attention to all three. Standards can be judged mainly by peer review. Quality assessment is a matter of ensuring that the teaching methods match the declared educational aims and objectives – including the success with which expected standards are achieved. Quality assurance is assessed by inspecting the procedures by which an institution maintains and improves its own quality and its achievement of standards. This of course includes the methods of staff development which are employed.

2. A STARTING POINT

During the last three decades a large number of studies on academic issues (including standards and quality) in higher education, have been conducted. Amongst these are the "Study of the transition from school to university", done by the Joint Matriculation Board (JMB) in 1963, the Committee of University Principals (CUP) Inter-University Conference (1967) and its "Symposium on the transition from school to university" (1978), the Report of the Van Wyk de Vries Commission (1974), and an investigation carried out by the Human Sciences Research Council (HSRC) for the JMB in 1984.

An appropriate and logical starting point for an analysis of recent higher education strategies in quality and standards in the RSA would be the Main Report of the Commission of Inquiry into Universities (RP 25,1974).

The last two decades since this Report was published have seen many dramatic and even traumatic changes in higher education. However, a perusal of the so-called Van Wyk de Vries Report reveals that many of the fundamental issues relating to standards and the principles which were expounded, are still valid in the vastly different context of the "new South Africa" of the 1990s.

2.1 Commission of Inquiry into Universities

Although the term "standards" appears fairly frequently in this Report, the terms "quality" and "excellence" are seldom used. The use of "standards" is concentrated mainly in Chapter VIII "Certain Domestic Aspects of the University", and in Chapter X "The Future of the Universities".

An analysis of the references to academic standards reveals that in the section referring to the "Transition from School to University" the following points are made:

> "...university standards should not be lowered merely
> in the interests of a smooth transition from school to
> university, and the Commission also accepts that the
> pace of teaching has to be more rapid at a university
> than at school. What is important to the university
> is the standard of its degree or diploma; first-year
> standards are of lesser importance, since it is
> possible to raise the standard more sharply after the
> first year, so that the standard envisaged for the
> final degree or diploma can be attained" (Commission,
> 1974: 228-229).

This extract is indicative of the concern for the preservation of standards which has always existed since the establishment in the 19th century of the first institutions for higher education. It also highlights the "gap" between school and university/ technikon/college which often exists and which is still a cause for concern in the decade prior to the 21st century.

In the next quotation the question of a comparative standard within the international academic community is raised. Once again one could claim that this is even more a preoccupation of higher education leaders in the 1990s than it was twenty years ago:

"As a result of sustained contacts, there is a tendency to bring standards at South African universities into line with those of overseas universities. The Commission is satisfied that considerable benefit is derived from these contacts with selected overseas universities and that this helps to maintain the high standards of our own universities" (Commission, 1974: 237).

The section referring to "Equivalence of Degrees, Diplomas and Certificates" states that it is the prerogative of each university to lay down its own standards and that there is no question of introducing uniform standards at all universities. However, the transferring of students from one university to another and the exemptions from courses which are often granted and the recognition of degrees, necessitates the following arrangement:

"...it is important that standards should be fairly uniform, and it is for this reason in particular that the Commission considers it to be sound practice for academic staff at one university to act as external examiners for another" (Commission, 1974: 254).

This question of equivalence and recognition remains a crucial point in the 1990s and it will always be something which higher education systems have to contend with since it applies also to university links with, and accreditation of, other higher education institutions such as technikons and colleges of education. It is also interesting to note that the Commission felt it desirable to use external examiners from outside the university for every final examination in order to ensure an

acceptable standard and fairness and objectivity in the assessment.

The Commission's concern with "Attracting and Retaining University Teachers" related mainly to the fact that it was essential for teaching staff to have academic qualifications of a high standard. The Commission's view, based on a large number of submissions and evidence was as follows:

"It is accepted that the guarantee of a good standard of university qualifications is the high standard of scholarship of the teaching staff" (Commission, 1974: 268).

The extent to which these maxims still apply to higher education at the threshold of the new century clearly needs examining later in this chapter since there is not necessarily a direct relationship between teaching ability and the attaining of advanced qualifications and the execution of scholarly (and often obscure) research.

In considering "The Future Pattern of Academic Education" the Commission once again expressed a definite opinion about standards:

"... the universities owe it to society and the community to keep pace dynamically with all new scientific and other knowledge and to raise their academic standards progressively" (Commission, 1974: 488).

The implications of this insistence on a progressive upgrading of standards has very definite repercussions in our current higher education milieu since it does not take cognisance of the considerable problems experienced by many high school pupils in poorly-equipped schools who are being taught by under-trained teachers. This point will be referred to again in a later section.

In its final, specific reference to standards the Commission refers to "The University as the Leader at the Tertiary Level" and the twofold role which the university must play in providing guidance to other players in higher education. Firstly, it mentions the provision of a scientific foundation and secondly:

> *"... the application of these principles to everyday teaching as a guarantee of the set standards which are essential to the success of such education". (Commission, 1974: 490).*

The reference to "set standards" is not qualified or explained but implies those that have been referred to in the aforegoing extracts, namely, those of other local universities and their international counterparts. The whole question of using "first world" standards in a country which has large pockets of "third world" people and educational institutions, needs to be analysed and reviewed against the background of the setting which prevailed two decades ago when the Commission wrote its <u>Main Report</u>.

In sum then it can be seen that the Commission's references to standards deal with principles which inevitably have to be considered within the different context of the social and political turmoil of the 1990s. Although this remarkably well-written report has dated in some parts it nonetheless poses questions which are still being addressed today.

3. STANDARDS IN THE 1980s

3.1 Academic Standards at Universities in the RSA

In October 1986 the Universities and Technikons Advisory Council (AUT) was asked by the Minister of National Education:

> *"(a) to investigate whether the basic assumption underlying the financing formula, namely, that the same academic standards obtained at all*

> *universities, was well-founded...; and*
>
> *"(b) if academic standards were found to be deficient in any way, to submit recommendations aimed at rectifying the situation with regard to possible differences in academic standards within and amongst institutions" (DNE, 1987: iii).*

A committee of AUT members and others was appointed and a report was finally submitted to the AUT in October 1987. The report was titled <u>Academic Standards at Universities in the RSA</u> [Nated 02-129 (87/10)] and was published in 1987 by the Department of National Education (DNE).

Although this report was written more than six years ago it dealt with a number of important principles which are very relevant in the 1990s. For this reason it is appropriate to analyse and comment on some of its findings.

The various Acts of Parliament which established universities and provided them with considerable autonomy, also vested the government and executive authority of a university in its council. These Acts also vest all responsibility (subject nonetheless to council) for academic matters in the university senate. Senate is also empowered to determine the standard of proficiency to be attained in each examination and to decide which persons have satisfied the requirements for the obtaining of degrees or diplomas.

Through its council and senate a university is therefore entrusted by the State to control the setting, maintenance and improvement of standards in academic matters (DNE, 1987: xi).

3.1.1 Measuring Standards

It is interesting to note that the identification of specific contributory factors in the measuring of academic standards was summed up in the DNE report as follows:

"International studies have identified the quality of
the academic staff and the quality of the educational
process at universities as the two most important
factors in setting, maintaining and improving academic
standards"   (DNE, 1987:   xiv).

After having analysed these two important aspects the writers of
the DNE report conclude that different academic standards are
apparently set and applied by universities in the RSA. Reference
is also made in this report to the measurement of staff quality,
and thus of academic standards. The provisions of the SAPSE-110
subsidy formula by which subsidy is generated based on research
output in the form of patents, books and articles, is one of the
formal ways of evaluating staff quality (DNE, 1987: xvi).

Staff appraisal procedures, which are devised to evaluate
teaching quality, are referred to although it is difficult to
ascertain just how regularly such evaluation takes place at
universities in the RSA.   Reference is also made to
differentiated remuneration policies in order to attract and
retain staff of outstanding quality, while specific mention is
made of the need for the regular evaluation of all academic
programmes at universities. The practice of external examining
is considered in the report to be an important procedure since
it offers students a measure of protection against local
prejudices and provides a genuinely external standard for
universities (DNE, 1987: xvi).

When addressing the issue of accreditation of universities by an
external body, the writers of the report avoid confronting the
issue by merely stating that since universities are empowered by
various Acts to award degrees and other qualifications, they can
be regarded as certification councils in their own right. They
therefore conclude rather naïvely:

"Formal   accreditation,   by   an   external   body,   of
universities or departments of universities to offer
certain degree or diploma programmes would thus not

fit naturally into the present political and statutory context of our university system" (DNE, 1987: xvi).

The issues mentioned above will be referred to later in this chapter since many of them apply to the other institutions of higher education too, and it is necessary to analyse more fully their impact on standards and quality.

In making Recommendations the report summarises its findings thus:

"(i)   *All measures adopted in ...attaining and maintaining high academic standards should take full cognisance of the autonomy of universities, especially in respect of their stated missions, and of the statutory responsibilities of university councils for maintaining standards.*

(ii)   *...*

(iii)   *Any measures aimed at maintaining and improving academic standards should ... be based on a common approach and should not be applied selectively.*

(iv)   *Any steps taken regarding maintaining and improving academic standards at universities should take into account both the existence of and the need for diversity in terms of objectives in the university system and should at all costs avoid enforcing uniformity in this respect" (DNE, 1987: xviii).*

The AUT Committee recommended eight steps which should be taken by councils and senates of universities regarding the maintenance and improvement of academic standards:

(i)   clearly formulate their broad mission, philosophy and goals;

(ii)   formulate the objectives of all new and existing programmes and introduce regular and rigorous internal and external evaluation of all programmes;

(iii)   maintain rigorous evaluation programmes for all master's and doctor's degree programmes;

(iv)   maintain mechanisms for improving the quality of existing and new academic staff including regular staff appraisal procedures;

(iv)   pursue a market related remuneration policy for academic staff which should reward excellence as a means of attracting and retaining staff of a high quality;

(v)   implement a system of external examining as a means of ensuring comparable standards within and across universities;

(vii)   update and plan all existing and new programmes in accordance with the policy in NATED 02-116 (87/03);

(viii)   implement regular evaluations of academic departments regarding the quality of their instructional/research staff and programmes (DNE, 1987:xix-xx).

A matter of concern is expressed in the references to the dramatic increase expected in the demand for tertiary education and the detrimental effect which such an explosion in numbers could have on academic standards (DNE, 1987:xxi). Such concerns are being voiced about the remainder of the 1990s and this issue, which relates partly to the provision of bridging and academic support programmes, will have to be addressed.

3.1.2 Staff Appraisal

The quality of the graduating student is most certainly dependent on, for example, the quality of the academic staff and also on the quality of the educational process and the resources available at his/her university.

Staff appraisal procedures are important in evaluating and maintaining academic standards. The view has been expressed that the system of peer review probably still presents the most reliable index of staff appraisal. The Committee stated:

> *"Though peer review procedures are certainly not infallible and though much room for improvement in them exists, they nevertheless provide a measurement of staff quality which cannot be discarded. Harm comes only if such peer reviews are treated as the only and unique indices of staff quality"* *(DNE, 1987:36).*

3.1.3 Academic Standards of Universities in the RSA

Amongst other issues the AUT Committee considered the question of academic standards at universities in the RSA relative to those in overseas countries. Such comparisons are extremely difficult for a variety of reasons. However, the AUT Committee concluded that standards at South African universities compare well with those of institutions of repute in other countries. It stated that this view is borne out by the achievements of students from universities in the RSA pursuing post-graduate studies in overseas countries, by research invitations to academic staff, and by the demand for RSA graduates and academic staff in the USA, UK, Canada and Australia.

One of the conclusions reached by the Committee relates to the question which prompted this whole examination of academic standards, namely, whether the original SAPSE-110 assumption of similar academic standards applies to the extended university system? The Committee states quite simply that the answer is in the negative:

> *"...the conclusion can be reached that different academic standards are set and applied by universities in the RSA"* *(DNE, 1987:46).*

3.1.4 Findings and Recommendations

This constructive attempt at examining the issues relating to quality and standards in universities in the RSA, concludes with a list of recommendations stated in terms of guidelines and principles. Much of this report is still relevant and applicable in the mid-1990s and cognisance should be taken of its findings and viewpoints.

3.2 Committee of University Principals (CUP) Investigation

A report entitled Macro-aspects of the University within the context of Tertiary Education in the RSA was published by the CUP in December 1987 after a year of intensive investigation by thirteen work committees. The Human Sciences Research Council also assisted with aspects of the study.

In the opening chapter an important issue is raised, namely, that our universities have to consider whether or not they are willing to submit to the prescriptions of international or "overseas" standards and to what extent that would cause them to become alienated from their own socio-cultural context. If they decline to do so they may become totally absorbed into their own communities thus nullifying any broadening of their cultural horizons. According to the CUP Report a balance between those two extremes should rather be achieved (CUP, 1987:7).

A number of references are made in this report to "quality", "standards", "academic excellence", and other terms linked to the question of promoting and enhancing standards. For this reason a brief review of those points serves as an important indicator of the CUP views on those matters.

3.2.1 Aspects Relating to Quality and Standards

3.2.1.1 Financial Pressure

The claim is made that financial pressures, which have resulted

from declining subsidies from the early 1980s and increasingly into the future, have resulted in a reduction of standards in a number of aspects of university life.

Reference is made to steadily reducing salaries for lecturing staff and the resultant decline in quality of academic standards and also in research, resulting, amongst other reasons, from the aging of the staff.

Further reference is made to the greater volume of books available on the market and far less money available at universities to purchase them resulting in a marked decline in library standards.

Attendance at local and international conferences has been, and continues, to be affected by lack of money. This fact has a direct bearing on academic standards since such conferences are regarded as essential.

Cuts in subsidies impinge directly on the ability of university departments to purchase current equipment and remain abreast of developments. Cuts also affect maintenance of buildings and laboratories which severely inhibits teaching and research tasks (CUP, 1987:39).

3.2.1.2 Admission Requirements

Extending the accessibility of universities without lowering standards or throwing open universities to all and sundry, is one of the dilemmas facing institutions in the RSA.

If standards in secondary education are lowered this could lead to a greater number of potential university entrants but also to a greater drop-out rate if university standards are maintained. For this reason there is a contrast between First World countries, which try to achieve a certain university standard by means of admission requirements and bridging courses, and many African countries which are trying to become more relevant in a

Third World context. Since the First and the Third World meet
in the RSA in a unique way the question of admission requirements
and their impact on standards needs to be looked at differently
(CUP, 1987:78).

3.2.1.3 University Standards

The CUP Report emphasises, as do most writers, that standards,
quality and excellence are multi-dimensional and are not easily
defined. It also concludes that standards at universities
represent the following dimensions: input, output, the quality
of staff and the effectiveness of teaching, and the demonstrated
attainment of excellence (CUP, 1987:90).

The statement is made by the writers of the Report that it would
be impossible or even undesirable for all universities to strive
to be equivalent to the best universities overseas. In pleading
for the retention of university autonomy the writers also state
that experience has shown that the highest standards are achieved
in a situation where autonomous universities regulate themselves
in terms of internationally accepted norms (CUP, 1987:91).

As in the case of the AUT Report, the CUP Report also analyses
a number of factors that jointly determine university standards
such as quality of staff, the quality of enrolling students,
facilities and conditions of service of staff, the relevance,
nature and development of teaching content, examinations
(external examiners), departmental or programme evaluation,
rationalisation, international liaison, and output.

A number of recommendations are made in order to ensure that
university standards are maintained. Amongst them are the
following:

* Maintain an environment in which scholarship can
flourish
* Appoint staff on merit alone and reward excellence

* Continual evaluation of staff (particularly by the peer group)
* Provision of adequate facilities
* Provision of curricula which demand scholarship and international standards
* Shift from teaching to independent learning by students
* Use external examiners
* Develop international liaison and co-operation
* Accreditation of universities should be investigated and implemented bearing in mind: it should initiate from universities; autonomy should be respected; self-evaluation should be the point of departure; departments should be involved; peer group evaluation should be used; and the rationalisation and accreditation should start at post-graduate level (CUP, 1987:100-101).

3.2.1.4 Conclusion

In the final chapter, issues such as quality and standards do not feature although reference is made in the recommendations to the maintenance of standards and its link with access/admission to universities.

What emerges from the CUP Report is a great concern for the preservation of academic standards and the enhancement of quality in all aspects of the universities.

4. THE DEBATE ON STANDARDS

The late 1980s produced a number of differing viewpoints relating to standards and quality in education in general and also more specifically higher education.

Two protagonists emerged in 1988, the one a Professor of Philosophy, and the other the Rector of a well-known university. They presented different approaches to the question of academic

standards, research in higher education, and the fundamental purposes of a university.

4.1 The Moulder Thesis

In a thought-provoking analysis (written in 1988) of the so-called "Africanisation" of our universities, Professor James Moulder of the University of Natal, Pietermaritzburg, pleads for a change in approach to the question of academic standards and research.

Moulder contends.that "Africanising" our universities is about *changing the composition of the students, the academics and the administrators*. It is about dealing with the problems that have been generated by the fact that the academics and administrators of our universities are predominantly white. It is also about changing the content of what is taught and changing the curriculum and the whole way in which learning and teaching is organised. He also states that "Africanising" our universities is about changing the criteria that determine what is an excellent research programme. In other words it is all about change and what he calls "structural violence". In defining "structural violence" Moulder refers to the vast number of black homes without electricity and the fact that black students are studying in a foreign language, namely, English.

The present paradigm within which we are trying to "Africanise" our universities is based on the assumption that South Africa is essentially a First World country with some pockets of Third World underdevelopment. The strategy to cope with this is the academic support programme (ASP) which is designed to ensure that underprepared (black) students are taught to cope with the demands of the university. The students have to change so that the university does not have to change (Moulder, 1988:9).

In 1980 when black students began to trickle into the mainly white universities, it was sensible to adopt something like the academic support strategy. One does not change a large

institution for the sake of a few individuals. However, the trickle has now become a steady stream and it could soon become a flood. It will also not be possible to find the money to fund the expansion that the ASPs require.

If universities want to grow, contends Moulder, they will have to enrol more black students and acknowledge that many white students are also underprepared. Moulder also claims that:

> "If we assume that the syllabus and the curriculum of our degrees are in order as they stand, and therefore that it is the students who must change or be changed, then we are going to generate more and more anomalies and move deeper into the kind of crisis that many of us feel has already begun..." (Moulder, 1988:10).

According to Moulder our universities need a new paradigm, a new set of assumptions within which they can operate. Claiming from the outset that his intention is to be brash and controversial, Moulder provides ten provocative statements which point towards a new paradigm:

> "South Africa is essentially a Third World country with some complicated pockets of First World privilege"

> "A new paradigm for our universities will not confuse the difference between standards and levels of education"

> "A new paradigm for our universities will accept that they are trying to operate at too high a level; and therefore that they will have to lower this level without ceasing to strive after excellence"

> "A new paradigm for our universities will take it as self-evident that they should give a much higher priority to being excellent at teaching than to being

excellent at research"

"A new paradigm for our universities will not include the idea of academic support programmes"

"A new paradigm for our universities will insist that academics try to implement their research findings"

"A new paradigm for our universities will wrestle with at least two questions that some people may find strange"

On the one hand, the university will try to guarantee that its degree programmes prepare its alumni for a vocation or a career. On the other hand, the university will try to find ways in which to use its facilities throughout the day and throughout the year, rather than for only about 50 percent of the day and about 60 percent of the year.

"A new paradigm for our universities will accept that primary schooling has a higher claim on government and private sector funding than tertiary education has"

"A new paradigm for our universities will operate on a more sophisticated subsidy formula, a formula which recognises that it is not necessary to subsidise every student's university education to the same extent"

"A new paradigm for our universities will accept that they are not entitled to as much autonomy as Oxbridge and Ivy League universities are entitled to" (Moulder, 1988:10-14).

Moulder's view presents a challenging and different approach to issues such as standards and quality and his ideas need to be seriously debated. His new paradigm has been rationally stated and ingeniously devised, and whether or not one agrees with him in part or in whole, he provides a provocative model for examination.

4.2   The Saunders Thesis

In a hard-hitting reply to Moulder's article Dr Stuart Saunders,
Vice-Chancellor of the University of Cape Town (UCT), took a
broadly opposing view in a newspaper report published in August
1988 (Horler,1988:21).

Dr Saunders was emphatic that academic standards be maintained.
He claimed that it was not high academic standards that barred
educationally disadvantaged students - the greatest factor
limiting education was a lack of money. Dr Saunders stated that
it would be short-sighted for UCT to lower its standards, because
the country needs graduates with a wide range of abilities in
order to grow economically. Although conceding that UCT does not
have all the answers, Dr Saunders nonetheless stated that even
students from disadvantaged educational backgrounds were/are
performing sufficiently well at UCT for the staff to feel that
they are making good progress.

Referring to the ASPs, and acknowledging that they are not
perfect, Dr Saunders felt that they are playing an important role
in helping to bridge the gap between school and university.

In referring to disadvantaged students, Saunders stated that
finding the money to pay their fees and accommodation expenses
was one of the largest problems and a major limiting factor at
the tertiary level. The first thing to be addressed is: How do
we ensure that funds are available for bright students from poor
socio-economic backgrounds to be able to attend a university?

Money was/is also a problem when discussing the ASP initiatives,
especially since financial support is not provided for them in
the subsidy formula.   Dr Saunders would like to see the
establishment of non-racial colleges, possibly linked to
individual universities, which could bridge the gap between
school and university in a one-year or two-year programme to
replace the present academic support programmes.

Dr Saunders believes that it is simplistic to discuss university education in terms of a First World and Third World situation. Different parts of the country are developed to a different extent economically, he claims, and he seriously questions whether that means that we have to be aiming at a different sort of graduate. He also questions the lowering of standards and allowing students to leave the university as semi-lawyers and semi-engineers. He does not believe that such reasoning will achieve anything constructive.

Dr Saunders also rejected suggestions that the importance of research should be downgraded since he believes that a strong research base at universities is important. He stated:

> "Without that (ie a research base) South Africa is
> going to remain dependent on importing technology. If
> we followed the argument that research is downgraded
> as a priority, we will imbed South Africa deeply in
> the underdeveloped world for the foreseeable future"
> (Horler, 1988:21).

Finally, Dr Saunders put his viewpoint strongly when he stated that it does not help the people who have been deprived for so many years to start lowering standards. He believes that we should rather ensure that everyone can measure up to those standards.

5. STANDARDS IN A FUTURE EDUCATION SYSTEM

5.1 An Educator's View

In a highly perceptive article published a few years ago, namely, "Educational Standards in a Future Education System: Are they the Issue? Clearing the Undergrowth" (Hartshorne, 1990), Ken Hartshorne raises many of the fundamental issues relating to standards in education.

He refers to this topic as "rather an uncomfortable subject" and

he reflects mainly on the school system recognising always that what happens at school level impinges directly and indirectly on higher education.

Hartshorne analyses the great concern about standards which is prevalent not only in South Africa but in most countries overseas too. As is the case with most educators writing on the question of standards and quality, Hartshorne cautions that in talking about standards we are dealing with an elusive concept, and that the greatest circumspection is necessary. He makes it very clear that this is not a simple, uncomplicated matter:

> *"What becomes very clear is that 'standards' cannot be accepted at face value. One has to ask questions such as 'Whose interests are they serving?' 'Whose interests have priority?' 'What is the purpose for which they are established?'...'When were these standards set?' and even more importantly, because education is very much a 'future process', 'Are they relevant to the future in a time of change?'"* (Hartshorne, 1990:6).

The perception by black parents of standards, for example, is different from those of the whites. Black parents, students and community leaders are aware that "standards" have been used as a mechanism to institute a "fine sieve", a "screening out" process that has been used to slam doors in their faces. Their experience of "standards" in terms of examinations has been unhappy and disillusioning. When there is a lack of trust in the accuracy, efficiency and fairness of the black examination system, "standards" begin to look like an artificial stratagem to limit the advancement of one sector of our society (Hartshorne, 1990:7-8).

Black leaders are also concerned about the need to maintain standards in schooling and there is a high regard for the value of effective, relevant schooling of high quality. There is no evidence that black leaders and parents see a dilution of

"standards" as part of the solution for present educational, economic or political standards. What is clear is that white interests can no longer dominate and determine the purposes for which standards are instituted, or decide how they should be measured or assessed. A more broadly-based, unified education system clearly has to take into account the interests of all children, and especially those whose interests have been badly neglected (Hartshorne, 1990:8).

In answer to the question "whether standards will be at risk in a new educational dispensation?", Hartshorne answers "Yes". This answer results from the fact that quality is always at risk at a time when the provision and delivery of schooling has to be stepped up considerably - a priority which the new government will not be able to escape. Hartshorne states:

> "... there is no necessary inevitability of standards falling if other things are also done, and quality is not sacrificed to the 'numbers game', which is the past experience in African schooling. Everything will depend on the following factors: the resources made available, the quality of teachers, the relevance of the curriculum, the effectiveness of the learning materials, and the restoration of the learning environment" (Hartshorne, 1990:9).

Hartshorne refers to the fact that the greatest dangers to standards in education lie in the present disintegration of the learning environment in Black urban townships and elsewhere. This deterioration has led to the destruction of the morale, self-image and real authority of the teacher. Pupils have unlearnt the habits of learning and study, are undisciplined in the use of time, underestimate the demands of examinations, and in many cases have become corrupted by "power". This is certainly not an atmosphere for the restoration of standards, however and by whomever defined (Hartshorne, 1990:11).

Hartshorne concludes his thought-provoking article by stating

that the major issue becomes not "standards" but our commitment of resources, effort and intelligence, to create the basic conditions under which attention to "standards" becomes possible and realistic.

5.2 Standards and Quality into the 1990s

The early 1990s has seen a spate of renewed interest in, and concern over, standards and quality at all levels of education in the RSA. Higher education and the quality debate have been the subject of numerous books, articles, reports, conferences and debates. The rapidly changing political scene, in which education has often featured, has also resulted in many publications in which the standards/quality controversy has been keenly analysed.

5.2.1 A Proposal for Accreditation at Universities

The Unit for Research into University Education at the University of the Orange Free State (UOFS) embarked on a project on accreditation in 1988. The result of the research was entitled "Proposal for Accreditation of Programmes and Units at Universities in Southern Africa". These findings were also presented at an International Conference on "Quality Assurance in Higher Education" held in Hong Kong in July 1991 under the auspices of the Hong Kong Council for Academic Accreditation.

The presenter of the paper, Dr EM Bitzer, referred to universities in South Africa and stated that they should not disadvantage themselves by ignoring matters relating to academic quality. According to him, universities should admit that they need to explain to the public what they are doing and also that they should establish mechanisms for enhancing academic quality such as those which exist, for example, in the UK, the Netherlands, and France.

Bitzer also refers to the urgent need to address academic quality in a rapidly changing society characterised by an alarming growth

in high risk students, severe cuts in university subsidies and the impoverishment of universities in terms of the execution of their teaching and research tasks. He states quite categorically:

> "This situation, as well as a variation in academic standards at universities in the RSA has led the state and the CUP to believe that self-evaluation and accreditation should play an important role in re-establishing the academic stature of universities. The state ... also declared a concern for the maintenance. of quality university education as a matter of national interest. Thus, there is a strong probability that other interested parties, like the state and professional bodies, may intervene to enforce quality assurance measures if universities themselves are reluctant to act in this regard" (Bitzer, 1991:1).

Accreditation would seem to be the obvious way for universities to determine whether reasonable standards are maintained, and which measures can be applied to promote quality. However, accreditation does not disregard the view that a university is primarily responsible for the quality of its teaching, research and community service. Internal self-evaluation is an important part of accreditation processes and forms an indispensable component of any strategic or other management process. It is widely accepted that peer group evaluation is vital to the achievement of necessary changes and improvements in universities (Bitzer, 1991:2).

5.2.1.1 Existing Forms of Accreditation

Although uncoordinated and ad hoc, various forms of quality assurance, and two forms of accreditation, do exist in South African universities.

The first of these is the accreditation of a number of university

programmes by professional bodies (eg medical sciences and engineering) which has taken place for many years. Procedures, criteria and level of involvement differ since such accreditation visits are geared to practice in the specific professions.

Secondly, one has to refer to the statutory powers of universities to confer degrees and their protection from any institution which is not an approved university. This vestigial form of accreditation as practised by universities does not offer sufficient proof of quality and needs to be supplemented by some form of external accreditation.

5.2.1.2 A Proposed Umbrella Structure for Accreditation

The Unit for Research into University Education proposed that the CUP should create an umbrella structure in the form of a University Accrediting Committee (UAC) in order to enhance quality in universities by means of accreditation and institutional self-evaluation (Bitzer,1991:7).

The proposed UAC would consist of seven members: four should be experienced university academic leaders, and three should be people from the private sector with proven insight into university matters. This committee should be a facilitating group, not involved itself in the evaluation process, but merely in the capacity of appointing a visiting team to conduct the evaluation process for the purpose of accreditation.

In a proposal for the phasing in of accreditation at universities five steps were proposed with Step 5 providing the all-important publication of the results of accreditation visits and the provision of information on the visits to all parties concerned including students, donors and the state (Bitzer, 1991:9).

5.2.2 Study Visit to Selected Countries

In September 1991 Dr CAJ van Rensburg, of the Technikon OFS, undertook a study tour to a number of overseas countries. One

of those visits was to the Netherlands where an interesting system of quality assessment in universities has been developed as a result of a Ministry of Education and Science policy paper on autonomy and quality in higher education published in 1985.

In this policy paper the universities were promised greater autonomy from central government in return for assurances on quality control. The universities were to be responsible for establishing appropriate quality control and assessment systems, but these would be subject to the scrutiny of the higher education inspectorate (Van Rensburg, 1991:6).

As far as the implementation of quality assessment is concerned, the Ministry sees itself as playing a less important role. However, it has stated that in future it wishes to place greater emphasis on ex post control in order to conform to its arrangement for the funding of universities (ie via selective, "conditional", financing of research and through linkage of the student number element of the funding formula to output rather than input) (Van Rensburg, 1991:7).

Van Rensburg sums the situation up in this way:

> *"Whilst it is the stated objective of the Ministry...*
> *that it wishes to increase the autonomy of individual*
> *universities, it has reserved the right to impose its*
> *own quality assessment system if (after a reasonable*
> *length of time) it judges the one adopted by the*
> *universities to be ineffective"* *(Van Rensburg,*
> *1991:7).*

5.2.2.1 External Programme Review

The Vereniging van Samewerkende Nederlandse Universiteiten (VSNU) is a body similar to our own CUP, and it began the task of establishing a system of external programme review soon after the 1985 policy document was made known. In 1988, the first trial reviews took place and the first cycle was completed in 1993.

The main features of the system are as follows:

* It is a national, discipline-based system. All departments/sections offering a particular degree programme are reviewed during the same period (3-4 months).

* A visiting committee of about seven members is established for each discipline to be reviewed. Six are experts in the field (drawn from academia and industry) and one is an educationist. The same committee visits all universities offering the relevant degree programmes.

* Prior to the visit each department/section to be visited prepares a self-study document, which is the type of internal quality assessment intended to stimulate quality management within the section and to provide basic information for the visiting committee. The VSNU provides a detailed checklist which specifies the format of the self-study and the information which should be included (Van Rensburg, 1991:10).

The emphasis in external programme review is on the development of a self-critical, evaluative culture in which quality is improved from the bottom-up, and not imposed by external control.

5.2.2.2 Quality Assessment in Australia

This review of the system of quality assessment in the Netherlands is reminiscent of the Academic Standards Panels in the universities of Australia which have been functioning for about seven years. The initial panels formed in Physics and History, Psychology, Computer Science and Economics, English and Biochemistry have concluded their visiting programmes (Dow, 1991:1).

These panels in Australia draw their legitimacy and authority

from the institutions themselves. They are not creatures of government or government agency (this contrasts with the committees in the Netherlands). The sponsoring body is the Australian Vice-Chancellors' Committee (AVCC) (the equivalent of the CUP in South Africa).

The Academic Standards Panel in a discipline would:

"*   *comprise five to seven persons, respected in their discipline and drawn from across the universities in Australia.*

*   *over a three year period visit each university which had a department in the field of the panel, for discussion, review and reporting of matters relating to curriculum, assessment and gradings in honours courses.*

*   *review annually the statistics of honours gradings across all relevant departments, and draw attention to any major discrepancies or other relevant matters.*

*   *review student work after assessments had been completed. They would not... participate directly in the actual assessment of students but could conduct a post-hoc review as a check on comparability of gradings. Selected theses, reports and examination papers and scripts would be available either at the time of a visit, or by other arrangement"* (Dow, 1991:3).

Reports from the Academic Standards Panels affirm the value of the visiting programme as a mechanism for focusing the attention of departments on their procedures for maintaining and monitoring standards. As a process of peer review, the Programme has the advantages of involvement, feedback and interaction in a non-threatening environment. Although the AVCC has confined the

evaluation to honours programmes, Dow has stated that it is worth considering the adaptation of the Programme to form the basis of university-based, self-regulatory, accountability covering the range of undergraduate and post-graduate teaching. This wider framework could be the basis for the future operation of subject Panels. While the higher education institutions are largely self-accrediting, there are expectations of demonstrable quality control and accountability (Dow, 1991:5,6).

Dow summed up the whole process in the following way:

> "*Provided the panels and the academic standards programme is seen as a major means, but not the only means, of maintaining consistency, comparability and some interactive dialogue about standards, it is likely to serve the Australian system of institutions well in the coming years. It is developing from a base of experience, it is proving acceptable as a peer-review process, and it is, by comparison with other schemes, quite cost-effective*" *(Dow, 1991:9).*

5.2.3 Conference on Standards

In January 1992 in Bloemfontein a wide-ranging conference on "Standards for a New Education Dispensation" was held under the auspices of the Education Association of South Africa.

A number of eminent educators and industrialists and other well-known public figures delivered papers which expressed their concern about the issue of standards and quality at all levels of our education system.

Selected extracts from two of the papers illustrate some of the approaches to standards and quality which are currently prevalent in educational circles:

5.2.3.1 Standards, Goals and Certification

In his paper on "Standards, Goals and Certification", Dr Fred

Shaw refers to the fact that a school is a microcosm of society, reflective of societal demands and expectations and that standards can only usefully be understood in this context (Shaw,1992;61).

Shaw continues by stating an important point:

> "Culture forms the basis of standards in education, but it is never complete or perfect. Thus when people speak of standards, they frequently speak of an intangible, but real phenomenon and are easily confused... it is postulated that young people adapt the culture of their parents and forefathers in a reconstructed culture of their own. Therefore, culture which inevitably is the framework for educational standards cannot be absolutely nor normatively defined in any way" (Shaw, 1992:62).

Referring to the nature of an educational standard, Shaw states that it is exemplified in the whole curriculum offered by a school, in its socialisation of the pupils, its content, the ground rules expounded by the "hidden curriculum", as well as in its global intent and preparation for adult society. If these are perceived not to live up to the expectations of the society concerned, one may expect rejection on the grounds that the standards are inadequate and alternative education movements with political overtones can arise in an attempt to meet the desired cultural aspirations of the group (Shaw, 1992:64).

In concluding his paper Shaw contends the following:

> "It has been asserted that it is a simplistic and inadequate approach to think of standards, merely in terms of content and the testing thereof. One has to look beyond these, to find suitable indicators of quality and satisfaction to determine whether an educational system is doing what is expected from it. In a sense an educational standard in its broadest

sense may be considered as a set of expectations which carry the reasoned consensus of contemporary society, while avoiding political rhetoric and sloganing (Shaw, 1992:71).

5.2.3.2 Economic Perspectives

In a paper entitled "Economic Perspectives on a New Education Dispensation", Professor JC Claassen of the University of South Africa, suggests that any debate on standards must take economic factors into consideration.

Claassen states that it is a myth that the abolition of racially segregated education structures will necessarily lead to cost-effective education. The present structures are likely to be replaced by regional departments and schools which could be allowed to retain a degree of separateness based on linguistic, cultural and religious grounds, although not on racial grounds. Although such ideas may have education merit, they are hardly money-saving ideas (Claassen, 1992:164).

Claassen also refers to a statement by Moulder (1988) in which it is suggested that South Africa can ill afford not to have a prominent utilitarian goal for its education. From an economic point of view, traditional goals of education such as nationalism, liberalism or socialism should take second place to utilitarianism.

Claassen avers that it is a fallacy to assume that the output of education will be improved simply by increasing the financial input. An irrelevant education system operating in isolation is not rendered relevant by spending more on it (Claassen, 1992:110). The fallacy that throwing taxpayers' money at a social problem will resolve it, is often pointed out by free market exponents, who maintain that the exercise creates a bottomless pit down which the money vanishes (Louw & Kendall, 1986: 59,96).

All these points impinge on the question of standards and quality and it is clear that maintaining education standards in the future will not be easy if the economic environment is a deprived one.

5.2.4 National Education Policy Investigation (NEPI)

The NEPI project comprising thirteen reports was conducted under the auspices of the National Education Co-ordinating Committee (NECC) between December 1990 and August 1992. The report under review is entitled <u>Post-Secondary Education</u> (1992)(NEPI, 1992).

Regarded as the non-Governmental sector's analysis of feasible options for the short- to medium-term future of post-secondary education (PSE) it contains surprisingly few references to standards and quality.

The main references to "quality" are found at the end of Chapter 3 under the heading "Equity, quality and development" and late in Chapter 5 where sections on "Access, quality and development", "Access and quality" and "Quality and development" can be found. However, the subsections are brief and do not really address the subject in any detail and the tone of the writing has a definite political/social connotation.

An extract from Chapter 3 of the report illustrates what the tenor of the thought is:

> *"Concerns about inequalities and inequities may need to be balanced by concerns for economic development and, as a direct consequence, by concerns for the quality of the programmes offered by PSE institutions... Strategies designed to improve equity in a PSE system could lead in certain circumstances to a decline in the quality of the system... How can the demands of equity be made consistent with South Africa's need for a PSE system of high quality?" (NEPI, 1992:58).*

The gist of the message related clearly to the questions of equity and inequality as can be seen in further extracts from Chapter 5. In this section the central issues referred to earlier, namely, the tension which exists between access, quality and development, are further analysed. It is further stated by the authors of the NEPI report that the need to ensure access and quality may require institutions to concentrate on what they "do best", taking into account their student "clients", and their staffing, and physical and other resources (NEPI, 1992:116).

When referring to quality and development it is stated that the PSE system must become one that insists on quality and gives a high priority to science, technology, and the country's capacity for technology transfer. Under this option it is assumed that PSE institutions, while striving to maintain quality, will adopt standard, equal-opportunity mechanisms (NEPI, 1992:116 & 117).

5.2.5 Education Renewal Strategy (ERS)

During 1991 and 1992 a number of teams, consisting mainly of white educators, many of them employed by the various Government departments, developed the so-called Education Renewal Strategy under the auspices of the Department of National Education. Finally in November 1992 the report was published despite the lack of support from the emerging non-Governmental education groups.

5.2.5.1 The ERS Views on Standards

Early in the report the writers make it clear that sustained annual growth in learner numbers is making virtually impossible demands on the education systems and is affecting the maintenance of a high standard of education. It is also clear that maintaining standards in the face of this unprecedented demand for education is one of the most daunting challenges facing education planners (DNE, 1992:2 & 4).

The writers of the report mention a number of issues which are indicative of the long and arduous task that lies ahead in reforming the education system. However, in this process of reform the two cardinal issues remain:

(1) maintaining educational standards and
(2) providing equal education opportunities (DNE, 1992:8).

The ERS report also refers to the country's limited financial resources and the ever-increasing number of pupils and concludes that structural changes will have to be made in education in order to make it more affordable. Such changes will have to be effected without in any way compromising existing high educational standards (DNE, 1992:12).

The maintenance of the existing high academic standards - which should not be confused with the ample allocation of resources - in some sectors, will benefit the whole community in the long-term, because standards in education are derived from the best that is being achieved in a community (DNE, 1992:12).

The report ends on a note which has a distinct message for all educators:

> "It is of the utmost importance that in establishing... an education system there should be no compromise whatever regarding education standards" (DNE, 1992:139).

5.2.6 Journal on Quality and Quality Assurance

The South African Journal of Higher Education (Vol 7 No 2, 1993) was devoted entirely to articles relating to standards, quality, and, particularly, quality assurance. This provides further evidence that the standards/quality debate is regarded as highly topical and that it continues to stimulate analysis and controversy.

The following brief extracts from some of the Journal articles serve to further demonstrate the tone of thought, relating to standards and quality, which is currently prevailing amongst leaders in the HE community.

5.2.6.1   Institutional Self-Evaluation

In "Identifying criteria for institutional self-evaluation at universities", Bitzer stresses the fact that educational quality depends on how well the various components or units of a course, programme, or institution cohere in achieving educational objectives (Bitzer, 1993:28).

In the survey conducted on institutional self-evaluation (ISE) Bitzer selected the mission statement as a first focus for analysis.   In addition, three component areas (or sub-systems) upon which self-evaluation may focus (academic staff, educational programmes, and students) were also singled out for analysis. The research indicated that although there is no general agreement about the principles upon which self-evaluation ought to be based, there are five essential questions that comprise the tenets of ISE:

1) Does the institution have clearly stated and appropriate aims, goals and objectives?

2) Does it have the necessary programmes and adequate resources to achieve these aims, goals and objectives?

3) Does it offer an environment conducive to attaining these aims, goals and objectives?

4) How well is the institution achieving its aims, goals and objectives?

5) What steps are being taken in order to achieve those goals not yet achieved?   (Bitzer, 1993:29).

In the "Conclusion" to the article, Bitzer and the research team conclude:

"Quality and quality assurance remain 'hot issues'.

Universities should thus integrate ISE into their strategic management processes, which in turn should be linked to proper environmental analysis. Guidelines for this linkage and the processes should be developed, as well as guidelines according to which disciplines can implement self-evaluation. Finally, universities in South Africa should develop policies, mechanisms and instruments for the identification of critical areas of self-evaluation, as well as the criteria and instruments to evaluate these areas" (Bitzer, 1993:32).

5.2.6.2 Quality Assurance and the Developing University

In writing about "A developing university's perspective on quality assurance", Justice Noruwana points out certain basic issues which apply equally to "young" technikons and universities.

Such institutions need to know what their internal quality is, what their needs are, and the nature of their organisational adaptability. The very process of acquiring this information is engagement in quality assurance. They also need to take a fresh look at their mission statements and adapt them in the light of pressures in a new democratic society. Developing universities need to confront the question: "Whose standard must be used to tap excellence?" One way is to identify criteria that can be used to measure areas of excellence that are peculiar to their educational contexts and missions (Noruwana, 1993:40).

Quality assurance should be used for internal growth rather than for competing with the external world. More attention should be devoted, says Noruwana, to student and staff development programmes - the key to excellence is professional development (Noruwana, 1993:41). He concludes his article in the following way:

"No institution can avoid quality assurance. The

pressures that brought about quality assurance overseas are already being felt in South Africa, and they are going to intensify rather than abate. Developing universities can no longer do things as usual. They have to be accountable to their communities and to society for what they do. Yes, they must participate in quality assurance, but must do so on their own terms, and pursue their own predetermined goals" (Noruwana, 1993:41).

5.2.6.3 A State Perspective on Quality Assurance

In examining "The state's perspective in regard to quality assurance" (title translated by this author), HC du Toit (1993) tries to provide perspective on the topic in the following way. In the final analysis quality assurance in tertiary education, as in all walks on life, depends on the value-orientation of the community. In essence it is the views of the community about quality which determine the basis of quality assurance and give it the necessary impetus. Quality assurance is deeply rooted in a view of life which would provide only the best for one's fellow man. If such convictions are not present then no mechanism, from the state or elsewhere, will be able to ensure quality (Du Toit, 1993:62).

Further, although quality and standards are a sine qua non for progress in tertiary education in South Africa, it is also critically important that accessibility to tertiary education be increased, especially for learners from backgrounds characterised by inadequate educational opportunities.

Quality and accessibility need not in any way be mutually exclusive. Rather than lowering the quality of tertiary education in order to accommodate more learners, determined efforts should be made to create effective mechanisms which could bring learners from deprived backgrounds up to the required level (Du Toit, 1993:62-63) (Translation done by this author).

5.2.6.4 Quality Assurance and Management Information

In his article "Management information for quality assurance" (title translated by this author), PC Minnaar (1993) makes certain fundamental points which are germane to the topic.

Amongst others, Minnaar states that the quality of decision-making in a university is strongly dependent on the quality of the management information system (Minnaar, 1003:69). He goes on to say in the summary of his article that quality in a university is assured by the quality of the decisions which are made, by the execution of policy and procedures and by the evaluation of results against accepted aims and objectives. However, in order to ensure quality in decision-making and in the processes and products of a university, management information of a high quality is a prerequisite (Minnaar, 1993:72).

Information is therefore also reckoned to be one of the most important assets of a university. Quality assurance should, however, not result from increasing external pressure on the university for more purposeful and effective use of limited resources. It should be a part of the normal management processes of the university. Quality management is not only the task of the senior management. It must evolve from an inherent "culture" of quality assurance by all members of staff. The striving after quality should therefore be a part of every process and product, however small or trivial. By the collective quality of all these processes and products a university can ensure that its aims and objectives can be achieved to the benefit of the whole community (Minnaar, 1993:72) (Translation done by this author).

5.2.6.5 Quality Assurance in the Future

In a challenging article entitled: "Future quality assurance in universities in South Africa", AH Strydom (1993) refers to the erosion of quality in Africa. He claims that it is no different from that in the rest of the world in the sense that the problems

of expanding numbers, financial constraints, and maintaining quality are evident throughout this continent.

According to Court the overall quality of higher education in Africa does not give grounds for complacency:

> "The symptoms of a downward direction are evident in staff attrition, deteriorating infrastructure, reduced numbers and vitality of seminars, a lower volume of research, and the absence of books, laboratory equipment, computational facilities, journal subscriptions, and other basic necessities of university teaching" (Court, 1991:337-8).

In South Africa, avers Strydom, the need to address quality through quality assurance is a pressing issue. The work on quality assurance done by the research unit of the Bureau for Academic Support at UOFS, underlines the need for relevant quality assurance mechanisms in higher education in South Africa. It is also recognised that the development of a self-regulatory system in which higher education institutions themselves are responsible for the maintenance of academic quality is an effective mechanism for public accountability (Strydom, 1993:84).

Strydom examines approaches to internal quality assurance (self-evaluation) and external quality assurance (accreditation). Most writers emphasise that any form of external quality assurance can only result in development and improvement if it is based on self-evaluation or internal quality assurance. However, the opposite is also true and optimal results in quality improvement seem to be found in the supplementary co-existence of both processes (Strydom, 1993:85). De Weert (1990:68) suggests that a specific sequence of internal followed by external evaluation allows the institution time to meet or plan for the correction of deficiencies.

Strydom concludes his article by proposing the establishment of

a quality management unit (QMU) by the CUP in collaboration with the universities, the private sector and government. Such a unit is essential for the purpose of creating development opportunities for disciplines which have applied for accreditation candidacy (see UAC concept referred to earlier), and for assisting universities in conducting institutional self-evaluation. Such a mechanism, he suggests, should be independent of any individual university: its consultative committee would represent a wide range of interests and through its management board (including at least three members from outside the HE system), it would be accountable to the CUP. The QMU would have to operate openly so that every university will know what the reviewers will be looking for (Strydom, 1993:87).

The QMU, according to Strydom and the research unit findings, would do the following:

*   Report regularly on the university system in order to help universities keep pace with change and identify good practice

*   At the request of a university the QMU will seek data and information on quality assurance mechanisms so that the peer review team (comprising secondees from universities) will have the opportunity of familiarising itself with all aspects of an institution's quality assurance principles and practices

*   Comment on the extent to which procedures in individual universities reflect appropriate good practices for maintaining quality

*   Identify and commend to universities good practices with regard to the maintenance of academic standards

*   Advise disciplines with candidacy on how to promote self-evaluation with a view to accreditation

* Report annually to the CUP on general matters of interest on internal quality assurance at universities and candidacy for accreditation (Strydom, 1993:87).

Although at differing levels of readiness for the implementation of self-evaluation, all higher education institutions need to accept that they have to participate in quality assurance since total quality is the concern of everyone these days.

6. CERTIFICATION AND ACCREDITATION OF THE TECHNIKONS

6.1 Formative Years

The five to six year period following the establishment (name change in effect) of the technikons in 1979 was marked by requests from those institutions for the right to examine students internally and to award certificates or diplomas to successful students. The technikons argued that their status as higher education institutions was eroded by a national examination system which often presented serious administrative problems.

A visit by officials of the Department of National Education to the USA in 1983 highlighted the importance of accrediting bodies in that country. This visit led to an investigation being conducted at national level which stimulated the idea of the establishment of a body in order to control standards at the rapidly emerging technikons (Jacobs, 1990:4). It was decided not to establish an accreditation body at that stage although it was made clear by the Minister of National Education that the certification body which was proposed would eventually lead to greater autonomy and accreditation for the technikons.

6.2 The Certification Council for Technikon Education (SERTEC)

On 10 September 1986, Act No 88: Certification Council for Technikon Education, was promulgated. The object of the Council was to ensure that corresponding technikon certificates issued

by the Council represent the same standard of education and examination. Control over the norms and standards of subject matter in technikons and the issuing of certificates provided the initial thrust of SERTEC during the second half of the 1980s.

SERTEC's mandate is to guard over the standards of instruction and examination in technikons. This means that it must guarantee to industry and commerce that the prescribed standards have been maintained and that the holders of SERTEC certificates possess certain capabilities (Jacobs, 1991:56-57).

In 1988 authority was granted to the technikons to conduct internal examinations at all levels. However, the certification of successful candidates had been transferred from the respective state departments to SERTEC and the technikons were not yet able to perform those functions despite repeated requests to the authorities.

SERTEC formed evaluation committees consisting of experts drawn from its own Council members, the technikons, representatives from employers and from professional bodies. Visits started in 1991 and the outcome of such evaluation committee visits was effectively a form of accreditation of each instructional programme although accreditation, in the American sense of the term, was not legally a function of SERTEC. It soon became obvious that formal accreditation visits would have to become part of SERTEC's statutory mandate and the agitation in this regard continued amongst members of the Committee of Technikon Principals which had a strong contingent on the Council.

During the last few years (1991-1993) a gradual shift has taken place and SERTEC has allocated more responsibility to technikons until eventually they were allowed to issue their own certificates under the aegis of SERTEC. This delegation resulted from the evaluation visits and the realisation that most technikons were able to assume such responsibility. During 1993 technikons were granted the right by SERTEC to issue certificates without the seal of SERTEC or the signature of the Executive

Director on them. However, each certificate still bears a clear
statement that is it issued with the approval of SERTEC. These
developments could be construed as a form of accreditation and
a precursor to full accreditation of individual programmes at
technikons.

Eventually on 29 December 1993 the Certification Council for
Technikon Education Amendment Act, 1993 (No. 185 of 1993) was
promulgated. This Act provided for a change in the "Objects of
council" in order to provide for "the accreditation of examining
bodies in respect of specific instructional programmes" (RSA,
1993:4). The long-awaited accreditation phase had at last been
authorised and the technikons can now embark on this important
stage of their autonomy-drive and couple it also to their recent
degree-granting status.

6.3 Quality Control at Technikons

The brief sketch of technikon quality assurance developments
during the years 1986-1993 indicates clearly that mechanisms have
been in place for a number of years. Unlike the universities
which rely mainly on external examiners and visits from some
professional bodies in order to ensure quality maintenance, the
technikons have been subject to full-scale evaluation visits by
teams of experts.

Since the advent of SERTEC and during the initial evaluations of
programmes the whole technikon movement has become acutely aware
of the need for quality assurance measures and such visits have
had a salutary effect on technikons. There can be little doubt
that the first eight years of SERTEC achieved the goals set for
it, namely, the creation of a means of ensuring at least minimum
standards in technikon programmes. It now seems likely that the
concept of self-evaluation will be introduced at technikons since
this has been the trend worldwide in higher education. The self-
evaluation phase is regarded as a more advanced stage of maturity
and is regarded by many authorities as the logical unfoldment in
a system of accreditation.

6.4 International Network

In a recent publication, Jacobs (1993:96), refers to the International Network of Quality Assurance Agencies in Higher Education (INQAAHE). At its meeting held in May 1993 in Montreal, Canada, the INQAAHE provided the framework for an international network which would help promote an understanding of quality initiatives in many parts of the world.

Such international contacts could be of great value to the emerging quality assurance schemes at various HE institutions in the RSA. Attempts at increased national and international mobility in HE, such as the European Action Scheme for Mobility of University Students (ERASMUS) in the European Community provide a logical link with quality assurance systems since quality assurance and mobility must work hand-in-hand. Increased mobility in HE must inevitably be an integral part of any model for quality assurance in the RSA (Jacobs, 1993:85).

6.5 An International Perspective on Accreditation

A stimulating paper (referred to by Jacobs, 1993:8-16) by Ralph Wolff in March 1993, examines accreditation in the USA and the latest developments in this field. Wolff states:

> "There are deep-seated problems with the current system of accreditation, even as we are moving more directly into the third era built on qualitative standards or a fourth era based on addressing more directly needs of public constituencies" (Wolff, 1993: quoted in Jacobs, 1993:8).

Wolff makes it very clear that the move towards qualitative standards has given rise to the concern by some HE institutions that the accreditation process has become more prescriptive. He states quite categorically:

> "The more we attempt to be explicit in articulating

our definitions of quality and to develop standards that engage well-established institutions in a searching analysis of major issues such as assessment, diversity or the effectiveness of the general education programme, the more we are perceived to be moving from collegiality to regulation" (Wolff, 1993: quoted in Jacobs, 1993:10).

According to Wolff, the main thrust of accreditation needs to shift from the attitude of compliance with minimum standards to an engagement with what he refers to as "deep reflection". Accreditation, implies Wolff, should be a leading agent for institutional reflection and change especially where this relates to teaching and learning. While reflecting on the need for a shift from the model of accountability based on the process of accreditation to one based on content, Wolff has a strong viewpoint:

"A new model of accountability is needed that is based more directly on evidence of effective teaching and student learning outcomes. This can be done in ways that assure the public of meaningful institutional accountability while respecting individual institutional autonomy" (Wolff, 1993: quoted in Jacobs, 1993:14).

Another significant point which Wolff makes is that hardly any information on accreditation visits is made public and he expresses the view that at some future stage all accreditation reports and actions will have to be made public (Wolff, 1993: quoted in Jacobs, 1993:15).

6.5.1 SERTEC's Approach

Prior to its Amendment Act (No 185 of 1993) SERTEC had embarked on a logical and sensible route which would eventually lead to full-scale accreditation. This route had directed visits and evaluation teams towards individual instructional programmes and

groups of closely-related programmes.

This strategy has proved to be very successful and it is interesting to note the swing in the USA towards programme accreditation and away from institutional accreditation. This means that SERTEC has anticipated the change of approach which is taking place in a number of sophisticated accreditation systems overseas.

SERTEC is currently amongst the most progressive accreditation and certification bodies in the world and its expertise is increasing each year.

The remarkable success achieved by SERTEC emphasises yet again the lack of a similar system amongst the universities in the RSA. If a highly developed HE system such as that in the UK has seen fit to establish a Higher Education Quality Council and other bodies in order to watch over quality and standards, it is likely that such a need also exists amongst universities in the RSA.

7.   TOWARDS A STANDARDS AND QUALITY MODEL FOR THE RSA - A PREAMBLE

7.1 Setting the Scene

Concern over the quality of higher education's output is not limited to Southern Africa. On the contrary it is widely shared amongst Western European countries, the United States, Australasia and other parts of the world too. It is a preoccupation that springs, in the main, from three developments: the need first to limit social expenditure; second, to guide student demand away from fields held to have a high risk of unemployment; and third, to develop that type of "qualification output" perceived as necessary for the transition to an economy based on high technology.

Though strategies vary, some concentrating on regulating access, others on influencing "output", evidence from Western Europe and

other countries, suggests a substantial increase in the type of control governments are now prepared to exercise in this field. The use of both monitory and validatory instruments to guide institutional response into those paths deemed imperative, are clear in the case of the Netherlands and France. Similar mechanisms of control are well established in Sweden, whilst the extension of limited entry faculties (schools or divisions) in Denmark points to a similar displacement of power from the base to central administration. The question which concerns higher education institutions in the RSA is the extent to which a future government will prescribe and become involved in the "standards"/"quality" debate.

7.2   The Demographic Time-Bomb

7.2.1   Population Growth and the Environment

In the President's Council report, A National Environmental Management System (RSA, 1991), population growth and its associated poverty is identified as the greatest single threat to the environment. It is further stated that South Africa's population growth has outstripped economic growth for several years and is likely to do so for years to come.

The report states that resource destruction results when large numbers of poor people compete for scarce resources and lack meaningful alternatives. The report continues:

> "Poor people have a greater direct dependence on the natural environment, and the alleviation of poverty will reduce pressures on such important environmental resources as trees and soil".

> "The potential desertification of large portions of South Africa as a result of water shortages and the over-exploitation of land are major contributors to the threat of environmental degradation" (RSA, 1992:70).

There is an enormous backlog in housing, education and job creation. As a society, it is claimed in the report, we are becoming poorer and poorer, and have less and less available to meet the backlog, less and less with which to help members of the new generation to become successful contributors to the economy.

The impact of these factors on the environment greatly influences what is happening at all levels of education and greatly affects what we are capable of doing in order to ensure that certain standards (however defined) and a certain quality (however defined) are maintained or achieved.

7.2.2 Population Explosion

In 1951, Jan Sadie (highly respected demographer and economist), delivered a paper at a conference in which he warned of a looming population explosion which would have disastrous consequences for the nation.

Meeting in Stellenbosch almost four decades later in October 1989, speakers at a congress of the Demographic Association of South Africa referred once again to "South Africa's ticking time-bomb which was showing signs of defying all attempts to defuse it" (Yutar, 1989:15). The delegates repeated Sadie's warnings from forty years ago and stated that the bomb was ticking at such a rate that catastrophe was inevitable unless radical changes were made.

In the early 1960s, Sadie, and others, had predicted vast increases in population, growing famine and poverty, vast housing shortages resulting in squatter communities around cities, and growing political instability. In 1987, Sadie commented that he had been forced to watch the depressing scene, which he had predicted all those years ago, turn into grim reality. Sadie stated in 1989 that the future is bleak since the situation is worse than he had predicted. This whole situation relates to the worldwide phenomenon of populations which are expanding at a rate that overtakes a country's economic growth and its ability to feed and provide basic services for all its people.

In South Africa limited natural resources, insufficient and
unevenly distributed capital and resources as well as a shortage
of entrepreneurial skills and general political instability, all
contribute towards the severity of the problem (Yutar, 1989:15).

7.2.2.1 Growth into the 1990s and Beyond

Population growth trends more recently are equally disturbing as
are the implications thereof on the provision of schooling and
higher education.

A Foundation for Research Development (FRD) Report Series No 2,
March 1992 (FRD, 1992) and a Supplement, "Our Crowded World",
published in The Argus in November 1991 both provide disturbing
forecasts of the population growth ahead of us.

The FRD report acknowledges that reliable statistics are not
available. However, an attempt is made to forecast the growth
by providing a high and a low rate in the diagram below:

DIAGRAM 6
POPULATION FORECAST IN THE RSA

Population (millions)

Years

Source: South African Panorama (1991)
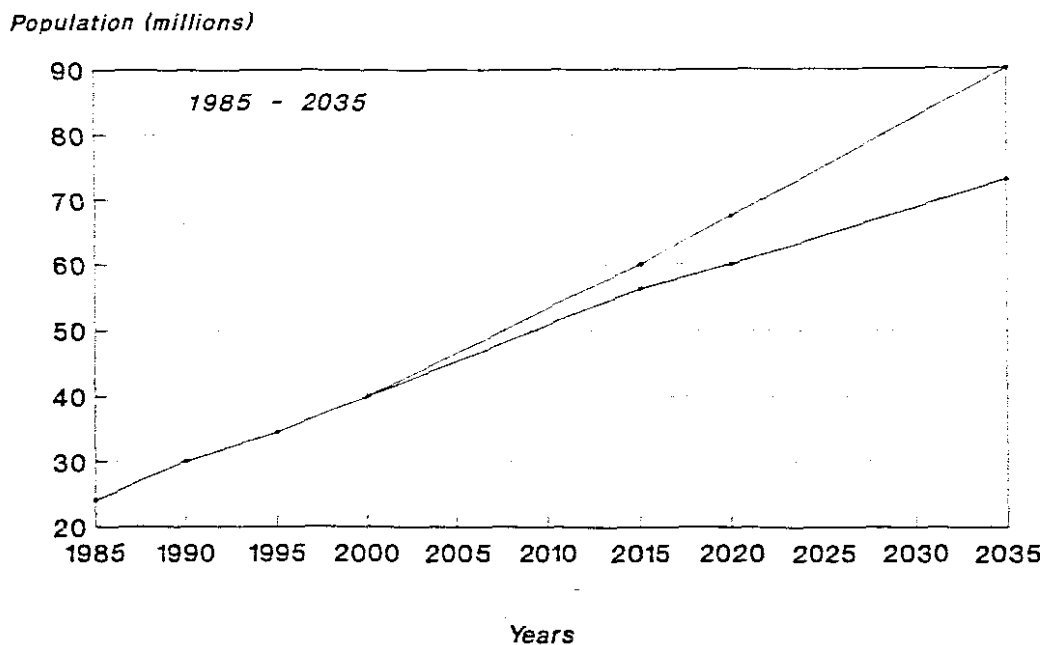
The Argus forecast differs somewhat from that of the FRD report.
It reported that South Africa's population could nearly double
to 65,4 million by the year 2025 and that it would become
increasingly black, youthful and urbanised as it grows. An Urban
Foundation study in 1990 provided the following figures: in the
year 2000 the total population would be 47,6 million and in 2010
it would be 59,7 million. This study stated that the most
important dynamic of projected demographic change is black
population increase. In absolute numbers there is/will be an
increase of black persons from 21,1 million in 1980 to 48,5
million in 2010. By comparison with this statistic, all other
macro-demographic trends in South Africa tend to pale into
insignificance (The Argus, 1991: Supplement).

The Urban Foundation study refers to the fact that South Africa
has an extremely youthful population by world standards – a
factor which influences the provision of education considerably.
This factor also increases the problem of "dependency" of the
unemployed on the economically active. The world average for the
segment of the total population in the age group 0-14 is 33
percent (in less developed regions 37 percent; in more developed
regions 22 percent). In South Africa in 1990 about 42 percent
of blacks fell into the 0-14 age group while two-thirds of the
black population were 27 years or younger (The Argus, 1991:
Supplement).

7.2.3 Implications for Education

It is self-evident that a "juvenile" population, rapidly
increasing numbers annually, and an ever-growing number of pupils
at all levels, including the senior classes at high schools, will
have a profound and far-reaching effect on all levels of
education, especially for blacks since their population growth
is the most rapid.

Vast numbers of disadvantaged and underprepared school leavers
are applying each year to enter higher education institutions
and, despite serious efforts made by academic support and other

programmes, standards are being threatened by this fact. Such large numbers of potential entrants to HE bear testimony to the population increase of the last few decades and to the greater provision of schooling to the masses.

The fundamental question which arises is: how does one maintain standards and provide quality HE under such circumstances? The answer is quite simply that a drop in standards and quality is inevitable since the economy cannot provide the means, namely, the schools and teachers in order to maintain standards.

The future of HE institutions, such as universities and technikons, is in the balance if standards are allowed to drop below an internationally acceptable level or if political and social pressures force a lowering of standards by demanding the enrolment of underprepared students.

It is reasonable to assume that a lowering of standards will seriously affect industry, commerce and the whole social fabric and ultimately the credibility of HE institutions in the RSA and the acceptability of their graduates.

REVIEW OF CHAPTER SEVEN

This chapter has reviewed the situation in regard to quality and standards in higher education in the RSA. These more specific references to the South African scene are an essential part of this study since the earlier chapters have dealt more with principles and examples which only indirectly included the RSA.

The placing into perspective of the university and technikon approach to quality assurance has been necessary as a precursor to the models which follow in the final chapter. The colleges of education and other institutions which fringe on the HE sector (eg agricultural, nursing, and technical colleges) have not been dealt with in this chapter since their quality assurance systems currently rely mainly on various state departments. The fact that the agricultural colleges have very recently (late in 1993)

been grouped with the technikons under the aegis of SERTEC has meant that very little evidence is yet available of the impact of this decision on those colleges.

References to the social and political climate prevailing in the RSA, and its effect on HE, help to set the scene for the quality models which have been designed to enhance and ensure an acceptable level of education.

CHAPTER EIGHT

QUALITY MODELS FOR HIGHER EDUCATION IN THE RSA

FOREWORD

The culmination of this study presents various models for quality assurance in HE in the RSA. These models are based on international and national views on quality and standards in education and provide a summary, in written and diagrammatic form, of proven principles which could be applied in any HE system.

The models presented in this chapter indicate the value of an eclectic approach and the wisdom of heeding lessons and experiences from a variety of HE systems in other countries.

The dynamic and almost volatile nature of HE in the RSA during the political and social transition of the mid-1990s points to the need for stability and for models which have been properly tested elsewhere.

The principles of TQM derived from a vast amount of industrial and commercial exposure and adaptation during the last forty years, provide a valuable base upon which models can be constructed and applied to systems of HE.

The final stage of this study includes recommendations for the next five years of higher education planning, while bearing in mind the constraints, both financial and resource-wise, which inevitably impinge directly on the best prepared models and schemes.

1. INTRODUCTION

In the light of spiralling higher education tuition fees, public concern for accountability and responsibility, operating expenses which defy all traditional cost containment efforts, and a highly

competitive market-place, a number of technikon, college and university leaders have asked the question: "Is there a better way to manage higher education?"

Increasingly, at conferences and meetings, in journal articles and campus discussions, there has been a willingness to examine a new paradigm, "total quality management", which has been analysed in the preceding chapters. TQM may well have its roots in industry but it has been successfully adapted to many service organisations including institutions of higher education.

According to Seymour and Collett (1991:1), the basic principles of TQM can be divided into three groups: philosophy, management, and tools.

The operating philosophy of TQM is that the leadership of an organisation must, by word and deed, convey the message that customer satisfaction, through a process of continually improving quality, is the responsibility of every member of the organisation. Since a philosophy is a necessary but insufficient condition to bring about real change, there also needs to be a structured system for creating participation in quality improvement throughout the organisation.

A second set of principles reflects the critical management methods needed to implement the new quality philosophy. The management of an organisation should make a conscious investment in helping people to perform their jobs better by reducing their fears and rewarding the efforts which result in improved quality.

Thirdly, the management of quality also requires hands-on tools. It requires that people work together to generate objective data concerning the processes in which they work and then apply that wisdom to a systematic methodology for improvement. Acting in concert, the philosophy, management, and tools of this approach to quality provide a powerful set of means that respond to the motivation for change in organisations/institutions (Seymour & Collett, 1991:1).

During the last ten years, in various parts of the world, a small number of pioneering institutions of higher education (or units within those institutions) have examined quality management on their campuses. In some cases great success has been achieved, while in others mistakes have been made. Nevertheless, these are the institutions which are doing the experimenting. They are learning about quality management principles and about themselves. They are trying to find a better way and it behoves the rest of higher education to learn from them and to glean clues as to their own future.

2. A MODEL FOR ASSESSING AND ENHANCING QUALITY IMPROVEMENT IN HIGHER EDUCATION

2.1 Model One - Adaptation of the Baldrige Award Criteria

For a number of years in the United States the Malcolm Baldrige National Quality Award has served to recognise outstanding achievement in the quality improvement process for American business and industry. Because of its attributes, the particular criteria used in making the award annually have been widely used to help develop effective quality improvement programmes in all types of organisations, including institutions of higher education.

The Baldrige Award Examination is built upon a number of key concepts. Together these concepts underlie all requirements included in the Examination items:

> "* *Quality is defined by the customer*
>   * *The senior leadership of business needs to create clear quality values and build the values into the way the company operates*
>   * *Quality excellence derives from well-designed and well-executed systems and processes*
>   * *Continuous improvement must be part of the management of all systems and processes*
>   * *Companies need to develop goals, as well as*

> *strategic and operational plans to achieve quality leadership*
>
> * *Shortening the response time of all operations and processes of the company needs to be part of the quality improvement effort*
>
> * *Operations and decisions of the company need to be based upon facts and data*
>
> * *All employees must be suitably trained and developed and involved in quality activities*
>
> * *Design quality and defect and error prevention should be major elements of the quality system*
>
> * *Companies need to communicate quality requirements to suppliers and work to elevate supplier quality performance"* *(NIST, 1990:2)*.

The seven Baldrige Award criteria which are examined are:

* * Leadership
* * Information and Analysis
* * Strategic Quality Planning
* * Human Resource Development and Management
* * Management of Process Quality
* * Quality and Operational Results
* * Customer Focus and Satisfaction
(NIST, 1991:40).

The purpose of this model is to explore some specific ways in which these criteria might be used to assess and enhance the process of continuous improvement at institutions of higher education in the RSA. In accomplishing this task certain explanatory remarks are necessary.

Firstly, it must be recognised that the Baldrige Award criteria are not intended to provide direction in reviewing "quality" *per se*, but rather to provide guidance for evaluating the ongoing process that an organisation uses to recognise, monitor, and improve quality. These criteria cannot therefore stand alone as a framework for quality improvement. The organisation to which

they are applied must already have invested considerable effort in developing quality processes for these criteria to be useful or meaningful. Secondly, though typically they are applied to the organisation as a whole, the award criteria can be applied to processes occurring at any level of an organisation. This means that they can be used as easily to shape unit-level review processes as they can be applied to total institutional strategies. Finally, in contrast to the kinds of detailed statistical process indicators that constitute the core of most total quality management approaches, the Baldrige criteria are both qualitative and periodic. Rather than being continuously applied to monitor delivery, they are intended to be regularly but comprehensively applied to audit the process of quality improvement as a whole, in much the same fashion as such periodic processes in higher education as regional accreditation or academic programme review (NCHEMS, 1991:119-120).

Considered together these caveats suggest the need for an overall, conceptual framework for analysing quality improvement processes at institutions of higher education. Such a framework can be constructed in terms of a simple matrix with two dimensions. The first dimension is based on functional area, and distinguishes academic from non-academic support units. The distinction is important because due to the nature of their objectives, operations and cultures, issues and methods of quality improvement will differ markedly. The second distinguishes criteria and indicators intended to directly monitor and improve quality itself from those intended to more periodically audit the quality-improvement process. Within the academic areas, in a number of higher education institutions in the RSA, indicators based on principles similar to the seven major criteria used in the Baldrige Award process, have been developed and are appropriate for guiding instructional improvement on a continuous basis. Within the non-academic areas, less has been developed to date, but because of the nature of their operations, appropriate indicators for guiding continuous improvement can be developed by using standard practices of TQM.

Basic quality monitoring processes are beginning to evolve in academic and non-academic areas in most higher education institutions. For this reason the proper role of the Baldrige criteria is to help a technikon, university or college of education to develop an effective means for taking a periodic look at the overall process of quality improvement - both at the unit level and for the institution as a whole. This model is therefore organised in the following way:

* Each of the seven major criteria is briefly presented. In Appendix 7 commentary is provided as to how it might specifically be applied:

    a) for reviewing quality improvement efforts for the institution of HE as a whole,

    b) for examining quality improvement processes for individual academic units, and

    c) for examining quality improvement processes for individual academic and institutional support units.

* For each of the seven criteria, specific questions for review are suggested.

* Like the Baldrige award process itself, however, it is assumed that the majority of "data" collected will be qualitative and contextual rather than strictly quantitative (NCHEMS, 1991:121).

In each of the three settings to which the criteria are applied, it is appropriate to consider how their use might fit into existing institutional evaluation or review mechanisms. For a technikon as a whole, for example, the criteria and the questions which they suggest might be made an integral part of the technikon's self-study process with a view to periodic re-accreditation by the Certification Council for Technikon Education (SERTEC). For academic units, they could be made an integral part of a regular academic programme review process

under which each degree or diploma programme is examined once
every three to five years. For support units a parallel non-
academic review process could be considered.

It should be noted that the review questions (set out in Appendix
7) for the seven criteria were drawn from several sources in
addition to the Baldrige Award process. They included:

a) review questions used in the "Minnesota Quality Award"
    process,

b) quality review guidelines developed by the North
    Dakota State University System which recently embarked
    on a TQM approach to quality improvement, and

c) internal review processes based on the Baldrige
    criteria and developed by Samford University and
    Oregon State University. Weightings assigned to each
    criterion are provided for information. Those shown
    have been influenced by the weightings used in the
    "Minnesota Quality Award" process (NCHEMS, 1991:122).

**2.2   The Seven Criteria - Applicability to Higher Education
(NIST, 1991:40)   (NB. Further detail is provided in Appendix 7)**

1. Leadership (10 percent weighting)

This criterion focuses primarily on how senior managers create
and maintain a clear and visible commitment to quality through
both the values which they publicly espouse and the specific
management direction which they provide.

2.   Information and Analysis (6 percent weighting)

This criterion addresses the adequacy of the organisation's data
and information resources, and how they are organised to support
and address quality improvement.

3. Strategic Quality Planning (9 percent weighting)

This criterion is focused on the organisation's planning processes for achieving quality as a whole, and specifically on how effectively it determines specific short-term and long-term quality priorities.

4. Human Resource Development and Management (15 percent weighting)

This criterion is focused on the manner in which the institution develops and realises the full potential of its human resources at all levels.

5. Management of Process Quality (15 percent weighting)

This criterion is focused on the actual processes used by the organisation to determine and monitor the quality of its products and services, and particularly on how these are integrated into an organised process of continuous quality improvement.

6. Quality and Operational Results (15 percent weighting)

This criterion examines current trends in the assessed quality of the organisation's actual products or services, using indicators already established by the organisation itself, criteria established by its customers, and "standard" performance indicators (if any) for determining the quality of particular products.

7. Customer Focus and Satisfaction (30 percent weighting)

This criterion focuses on the degree to which the organisation knows its "customers" (beneficiaries), and how customers actually evaluate their satisfaction with the products and services provided.

2.3 Diagrammatic Summary

The following diagrams (Diagrams 7 and 8) draw the threads together in summary form in relatively simple visual presentations. The theme remains central to Diagram 7, namely, the applicability of the Baldrige quality criteria to higher education.

Diagram 8 adopts a somewhat different form although it is merely a variation on the same theme. This version provides more detail and tries to show the interaction between the various components of each of the seven criteria.

Both diagrams represent an attempt at illustrating the principles involved and at indicating that they are adaptable to HE. They are also adaptable to campus management which is aimed at realising improved quality in all activities at all levels.

DIAGRAM 7

MODEL ONE - BASED ON THE BALDRIGE QUALITY AWARD
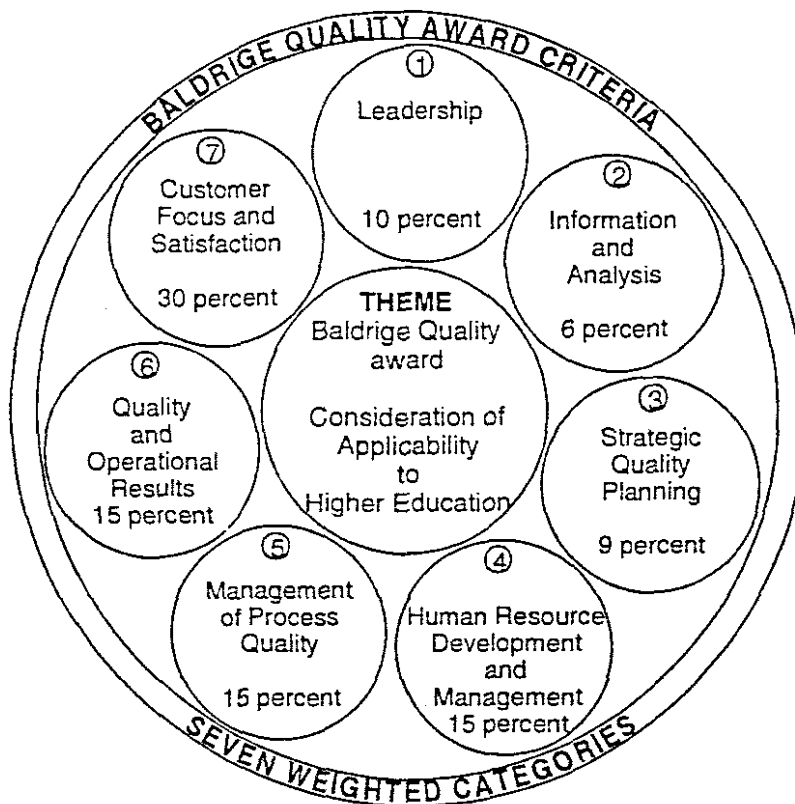
DIAGRAM 8

MODEL ONE – BALDRIGE CRITERIA ADAPTED TO HIGHER EDUCATION

1 LEADERSHIP	2 INFORMATION AND ANALYSIS	3 STRATEGIC QUALITY PLANNING	4 HR DEVELOPMENT AND MANAGEMENT	5 MANAGEMENT OF PROCESS QUALITY	6 QUALITY AND OPERATIONAL RESULTS	7 CUSTOMER FOCUS AND SATISFACTION
Specific management direction	Organised to support quality improvement	Goal is quality as a whole	Realisation of full staff potential	Integration of services and processes	Assessed quality of products	Degree of success achieved
Quality values publicly espoused	Standards and adequacy thereof	Specific long-term quality priorities	Development opportunities for staff	Organised process of continuous quality improvement	Indicators established by institution	Evaluation of satisfaction with services and products
Clear and visible commitment to quality	Data and information resources	Specific short-term quality priorities	Consideration of all levels of staff	Determine and monitor quality of products	Criteria established by beneficiaries	Awareness and knowledge of beneficiaries
Senior Administrators and academics	Institution as a whole	Planning processes	Human resources	Institution as a whole	Institution as a whole	Institution as a whole

Source: This author (TC Shippey)

2.4 Analysis of Model One

As is the case in the first three models, one has to substitute appropriate higher educational terms and environments for the business/industry-derived Baldrige Quality Award Criteria illustrated in Model One.

It is clear in Diagram 8 that the criteria transpose quite easily to a campus situation and that the business aspects of a campus are so considerable that the main principles can be readily applied.

The lessons learned from industry and commerce in the USA and their use of the Baldrige criteria, serve as an example for HE institutions in their efforts at enhancing quality.

3. A MODEL FOR STRATEGIC QUALITY MANAGEMENT APPLICABLE TO HIGHER EDUCATION IN THE RSA

3.1 Model Two - Preamble

What this author is advocating in technikons, universities and colleges of education in the RSA is a consideration of what Tom Peters called "creative swiping". He uses this term to describe the process of looking beyond an organisation for other ideas, other test wells, that may be adapted and enhanced to fit one's own special circumstances (Peters, 1987:279). In other words this proposal is based on an eclectic approach as described in Chapter One.

In a changing environment, in which a broadened set of choices is required of our higher education institutions, the need for strategic quality management (SQM - referred to in Chapter Three) becomes apparent.

There is an overlap between this new paradigm, namely SQM, and the culture of many of our HE campuses. The tools and techniques and the philosophy of SQM have been derived from the new management methods known as TQM which Japanese industrialists adopted after World War II and which eventually returned to the United States where it had originated.

The claim made here is that SQM can be successfully adapted to HE and that a viable model can result as will be illustrated.

Since quality in HE extends beyond the interaction between the professor/lecturer and the student in the classroom or the meeting of accreditation standards, it is clear that SQM must provide a set of multi-dimensional principles in order to be able to supply an appropriate framework for application to HE. SQM offers an appropriate vehicle for an operating philosophy for HE since it acknowledges that quality is a multifarious construct which is defined differently by various interests.

Narrow definitions of quality in HE are no longer acceptable since they focus on a limited, rigid set of outcomes when we need to think in broader operational terms.

From the organisational point of view a technikon, college or university seeks to advance learning and SQM provides a structural system that creates the potential for a learning organisation. The core idea of SQM is that the academic and the administrative staff on a campus need to take responsibility for understanding the system (delivering educational services) and for empowering everyone in the organisation to work on the improvement of quality. A SQM approach would suggest that the function of the administrators and the academics on a campus is not merely to describe what has happened or to control what will happen, but to foster improvement and show how an institution can be made better. This can be done by encouraging people to really understand the processes in which they participate.

SQM involves learning how to improve processes such as the registration of students and campus maintenance. It is a structural system which helps to provide a true learning organisation.

Whereas a college, technikon or university often operates as a collection of isolated, individual parts, the intention of the SQM approach is to provide a unifying force that advances an integrated, purposeful whole. Students often regard themselves as collecting credits for degrees; teaching staff regard themselves as primarily researchers; administrators see themselves as regulators (Glidden, 1990:M5). Such diverse purposes result in a triumvirate of forces driving off in different directions. What is often lacking is a sense of belonging to a common enterprise.

The organisational dynamic that makes bureaucracies move in a definite direction is known as "synergy". Many of the basic axioms of SQM create synergy-causing influences in organisations (Seymour, 1992:33). Deming's notion of "constancy of purpose"

provides a consistent philosophy and a unifying focus by emphasising a long-term commitment to a vision. It inspires confidence when an organisation is able to articulate its goals and practice daily decision-making which is consistent with those goals (Deming, 1986:21).

The strong orientation towards teamwork which is inherent in the SQM approach enables individuals to work at common purposes. When applied rationally and consistently SQM enables an institution to assume responsibility for causing quality in a systematic and comprehensive manner.

3.2 The Fundamental Issue

The main issue which a model has to address is the question: How can academic administrators and university, technikon and college leaders do a better job of managing quality into their campus operations?

Although funding is always significantly important in campus management, money alone does not guarantee quality. Increased funding will not improve quality if it is not allocated wisely and if it does not bring about customer/beneficiary satisfaction.

An improvement in accreditation procedures won't enable an academic leader to analyse daily problems more effectively, nor will an emphasis on improved student assessment. What is needed, and what a model must provide, is a new operating philosophy - a new approach to managing human and fiscal resources.

A problem arises when the management of quality is not a comprehensive, co-ordinated effort. This results in quality in fits and starts and in isolated, but highly successful programmes, in various parts of a campus. If quality as an organisational goal is not being pursued in a strategic fashion then one often finds that the mission statement is not being applied.

This preamble to the second quality model can be summed up thus: we need to "cause" quality, it does not just happen nor does it exist because we claim we have it. The final responsibility for quality lies with each individual at each HE institution.

3.3 Model Two

This model integrates the twelve basic points which comprise the key elements in the implementation of SQM. These elements identify the principles involved which could equally be pursued in an industrial/commercial enterprise or in a higher educational setting. Each of the elements illustrated could contribute to the maintenance of standards and quality in higher education.

DIAGRAM 9

MODEL TWO - INDICATORS OF QUALITY

(Based on SQM principles)

Source : Seymour, 1992:17-22 and this author (T C Shippey)
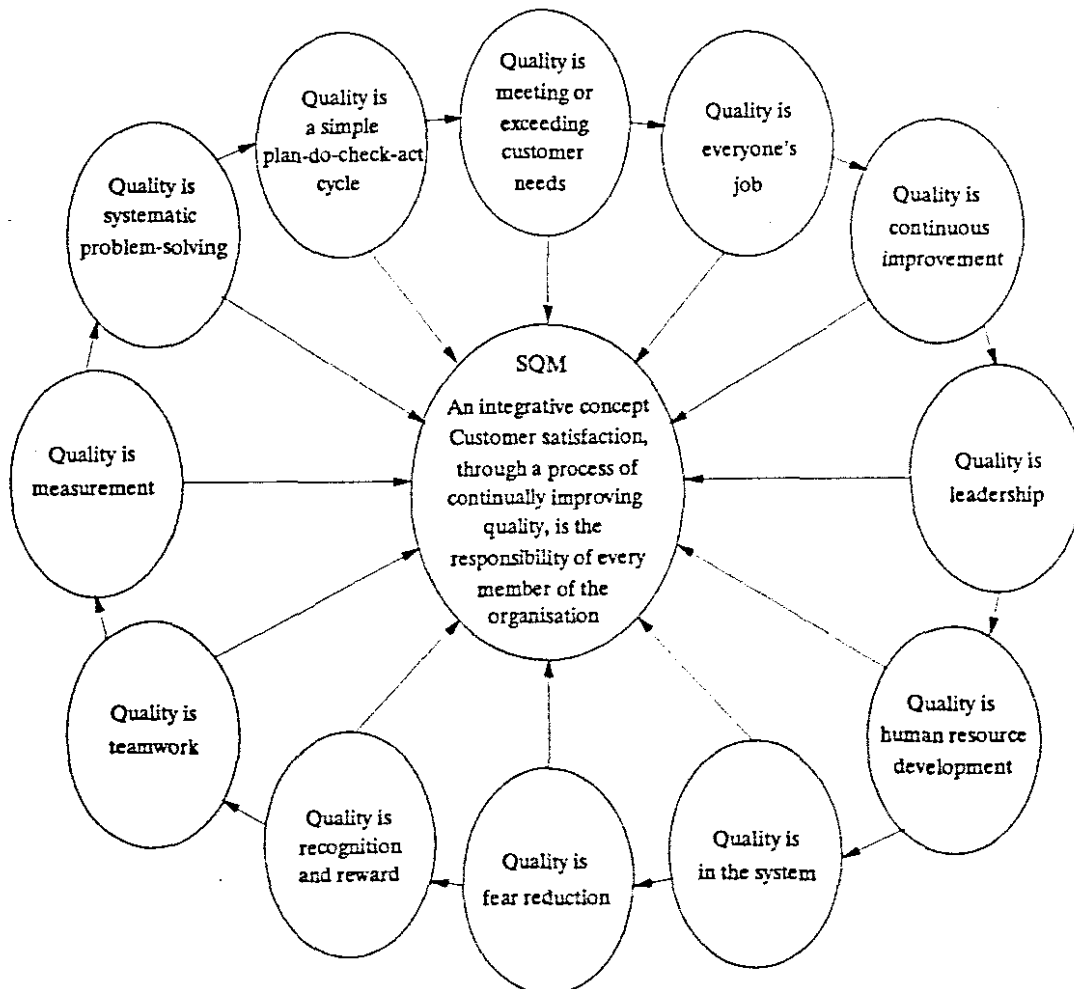
3.4 Analysis of Model Two

The substitution of words such as beneficiary/student/parent/ employer for the term "customer", which appears in the diagram above, would align the diagram more with the HE setting. All the points made in the model apply equally to a HE campus management structure in any part of the world.

The claim/assumption is made that if these twelve elements are wisely implemented on a campus, then a marked improvement in quality will occur. The claim is also made that this model will apply more to the administrative and non-teaching aspects of a campus than to the academic/teaching side of the operation. However, if the support systems and the administration function smoothly they will inevitably have a positive effect on research and teaching since the two primary elements are interlocking and function best as an integrated whole.

4. ELEMENTS OF QUALITY MEASUREMENT IN HIGHER EDUCATION

4.1 Model Three

This third model illustrates diagrammatically that HE comprises a number of subsections. In order for quality to be achieved these nine functions (and there are many more) need to work in concert. This diagram implies that the rational use of each subsection/function can contribute towards the enhancement of many facets of quality on a campus. An awareness of these functions will promote improved service to the beneficiaries and heighten the need for cognisance to be taken of every point made on the diagram.

Once again, the diagram illustrates principles only and they are applicable to any HE campus in any country.

DIAGRAM 10

MODEL THREE - ELEMENTS OF QUALITY MEASUREMENT IN HIGHER EDUCATION
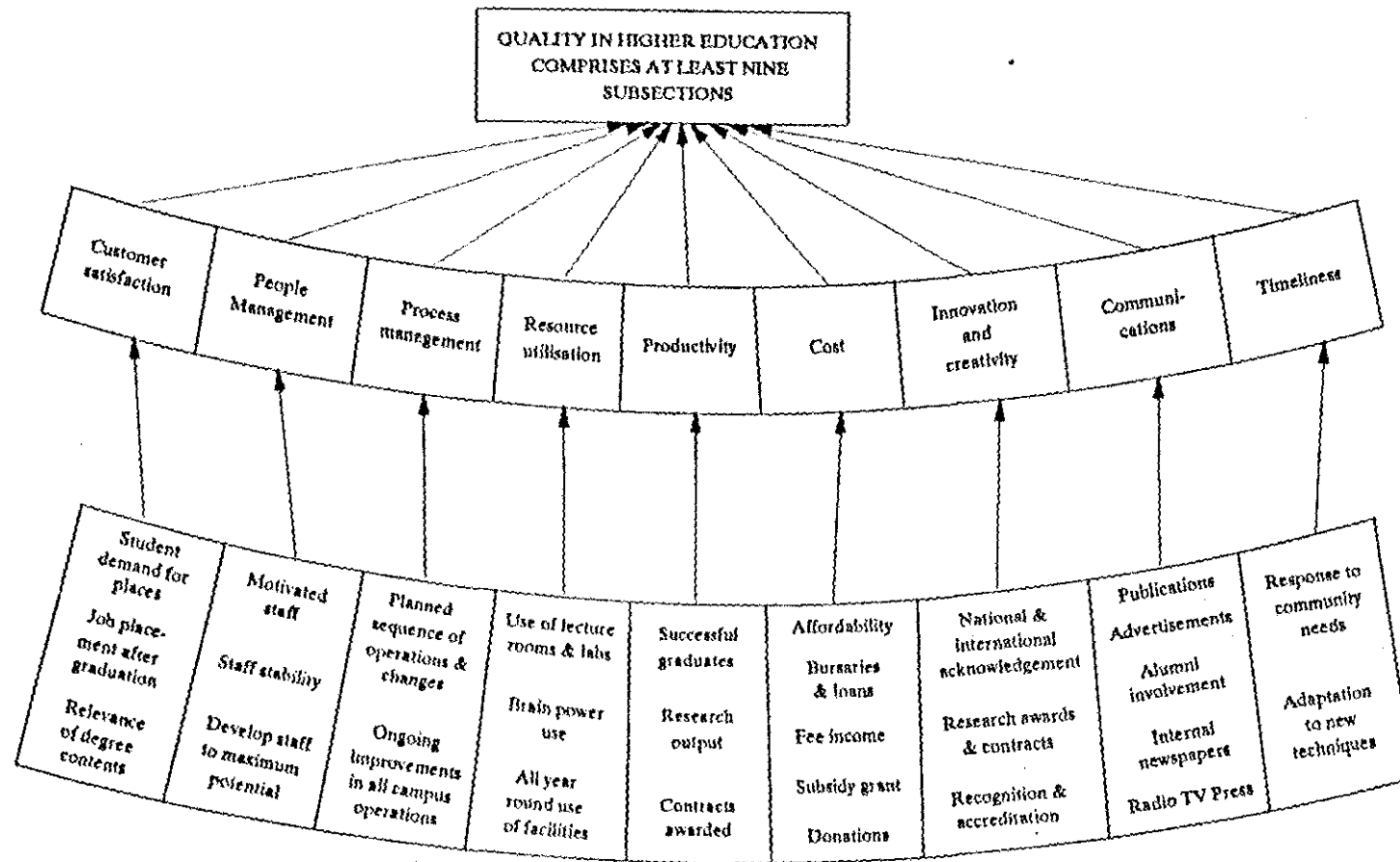
Source : This author (T C Shippey)

4.2 Analysis of Model Three

What emerges from an analysis of this third model is a common-sense, much-simplified version of a number of the TQM/SQM principles. The contention is that the enhancement of quality can be achieved by adhering to certain basic principles (some of which are illustrated in Model Three). By examining at least the nine subsections thoroughly, many ways of improving processes and services will emerge and inevitably quality will be upgraded in a number of areas.

The more detailed references to activities which could promote institutional efficiency if they were more effectively executed, illustrate but a select few of the possible areas where the quality of the service would be affected and thus the overall quality on a campus.

5. INTEGRATED QUALITY MODEL APPLICABLE TO HIGHER EDUCATION IN THE RSA

5.1 Model Four

The fourth model combines the essential points made throughout this study into an integrated whole and illustrates how this design can also apply to HE in the RSA. However, it will be noted that many of the ideas represented in this diagram are nonetheless universally applicable to most HE systems. Those elements which need to be applied in the RSA are incorporated into this diagram.

What is being illustrated here is the fact that the striving after quality in a HE system is, and has always been, a worldwide phenomenon. This model has that universality which is so necessary for any system wishing to be a part of the international network of HE institutions and its increased accreditation of credentials and mobility of students.

DIAGRAM 11

MODEL FOUR - A MODEL FOR QUALITY APPLICABLE TO HE IN THE RSA

Customers/Beneficiaries/Clients

Complacency is fatal to any quality quest
Lifetime learning is a sine qua non
Students, parents, employers, alumni
Customers define quality

Continuous Improvement

Do it right the first time
Avoid re-doing a task
Focus on the total process
Process = collaboration & teamwork
Banish fear from the workplace
Respond to the needs of users

Total Involvement

Involve all staff at all levels and
  empower them
Symbiosis; synergistic synthesis
Recognise and reward quality efforts

Base Decisions on Facts

Objective statistical data
Data-driven approach
Facts & data must be readily available
  & relevant
Quality of decision-making is
  dependent on the quality of data

Quality Control

Mechanisms within institutions
  for maintaining & enhancing the
  quality of their provision

Quality Audit

External scrutiny aimed at providing
guarantees that institutions have
suitable quality control mechanisms
in place

HE Institutions

TQM Principles

Quality = Fitness
for Purpose

Quality is profoundly
interdependent

Professional
Councils & Boards

HE Institutions

Accountability

To students
To parents (taxpayers)
To communities/public
To employers
To donors and alumni

External Examiner

Ensures objectivity
Provides assurances for students
  and employers
Promotes mobility and exchange
  (nationally and internationally)

Validation

Programmes judged to be valid
  by competent evaluators/
  validation body
Provides a standard for evaluation
  and approval

Quality Assurance

Internal quality assurance
Strategic management model
External evaluation
Self-evaluation

Quality Assessment

External review of, and judgements
  about, the quality of teaching and
  learning in institutions

ACCREDITATION

Peer and professional/practitioner evaluation
External quality assurance (objective evaluation)
HE Accrediting Committees

TENETS

THE PRIME RESPONSIBILITY FOR MAINTAINING
AND ENHANCING THE QUALITY OF TEACHING AND
LEARNING RESTS WITH EACH INDIVIDUAL INSTITUTION

STANDARDS MUST NEVER FALL BELOW THE
ACCEPTABLE INTERNATIONAL THRESHOLDS

SOURCE : This author (T C Shippey)

5.2 Analysis of Model Four

An examination of this model reveals that many of the fundamentally important points, which have been analysed throughout this study, have been incorporated into this diagram.

Model Four combines the quintessential elements described in Chapters Two, Three and Four as well as certain aspects of the HE system in the UK in Chapter Five. It also includes a few aspects such as university accreditation which need to be considered for the RSA. However, its main significance is that of an all-embracing model which accounts for a number of the key elements which need to be included in any balanced quality model.

Although it could be construed as idealistic and over-complex and as applicable only to highly sophisticated HE systems, this diagram could nonetheless be adapted to less sophisticated systems by applying fewer of the elements.

Such a model provides ample evidence of the adaptability of TQM principles to higher education. It also shows that the approach and quality-causing techniques derived from experience in commerce and industry can be utilised, albeit in a somewhat different form, in the academic environment peculiar to HE campuses.

6. A QUALITY MODEL DESIGNED FOR HIGHER EDUCATION IN THE RSA

6.1 Model Five

The fifth and final model incorporates a number of the important elements in quality assurance which can be applied to a higher education institution or system. Although it is not possible to include all the vital aspects within the compass of a single diagram, one can identify those elements which play a significant role.

In designing a model which applies more specifically to the peculiar circumstances prevailing in the RSA cognisance has been taken of the interesting blend of older, long-established HE institutions and the emerging, recently-built institutions which have yet to establish traditions and be fully accepted by the various publics which they serve.

Although this model has been directed mainly towards the technikons and the universities, the principles will apply equally to the colleges of education and those institutions on the fringes of the HE system. What emerges from this model is clearly an amalgam of the standards/quality assurance exercises in HE institutions in many different systems worldwide. These points have been combined with the main elements of the industrial and commercial TQM/SQM philosophy, as practised over many years, in order to create a balanced model. The purpose of the model is mainly to provide a guideline for those administrators and academics who wish to encourage a quality-conscious campus atmosphere and who are willing to adapt to the newest thrusts in HE.

The plethora of material on quality and standards in HE during the last decade has produced some outstanding research in this field and it is prudent to adapt and utilise in this model some of the best findings from the UK, USA, Japan and parts of Europe, in particular.

DIAGRAM 12
MODEL FIVE - A QUALITY MODEL DESIGNED FOR HE IN THE RSA
(THE CAUSING OF QUALITY IN A SYSTEMATIC AND COMPREHENSIVE WAY)

UNIVERSITIES AND TECHNIKONS

TECHNIKONS AND UNIVERSITIES (left vertical label)

TECHNIKONS AND UNIVERSITIES (right vertical label)

QUALITY MANAGEMENT UNIT (QMU) FOR CTP AND CUP WILL HELP HE INSTITUTIONS TO KEEP PACE WITH CHANGE AND IDENTIFY GOOD PRACTICE IN QA. SERTEC AND UAC HELP DETERMINE STANDARDS AND QUALITY IN HE.

AUTONOMY, CONTROLLED ACCESS, ADEQUATE FUNDING, INTERNAL AND EXTERNAL EVALUATION OF PROGRAMMES, STAFF AND DEPARTMENTS, SCRUTINY BY PROFESSIONAL AND PUBLIC BODIES AND PUBLICATION OF REPORTS, A SINE QUA NON FOR HE.

QUALITY IMPROVEMENT IS INEXORABLY BOUND UP WITH APPROPRIATE ASSESSMENT AND FEEDBACK

ATTACK THE PROCESSES NOT THE PEOPLE

INSTIL TEAMWORK AND CREATE SYNERGY AND AN ATMOSPHERE FOR INNOVATION AND PERMANENT QUALITY IMPROVEMENT

THERE IS A NEED FOR THE PURSUIT OF QUALITY IN ALL FUNCTIONS, ACTIVITIES, AND PARTS OF A HE INSTITUTION

THE ACHIEVEMENT OF QUALITY ALSO REQUIRES LARGE-SCALE AND PROFOUND CHANGE

MANAGEMENT INFORMATION
Data and information on QA mechanisms. Measurement of success and problems. Decisions based on facts creates a knowledge driven institution. Provides base for systematic problem solving

MISSION AND VISION
Need to be clearly formulated as do the goals and objectives which show what is needed to activate the mission and vision

FITNESS FOR PURPOSE
Beneficiaries indicate the purpose and educators provide the fitness. Development of means of identifying shortcomings in systems and user needs.

BENCHMARKING AND STANDARDS
Selection of benchmarks worldwide creates an awareness of standards to be achieved. Eliminates complacency and sets levels of excellence. Brings about international liaison

INSTITUTIONAL SELF-EVALUATION
Lies at the heart of a quality conscious HE institution and a quality paradigm. A self-critical, evaluative culture is required. The most reliable safeguard of standards is the growth of a HE institution as a self-critical, academic community.

PHILOSOPHY AND TOOLS OF SQM
Comprehensive and systematic approach to quality. The creation of organisational cultures that motivate, support and enable quality management in all activities of HE.

FEAR REDUCTION
Full participation of staff by encouragement of involvement and contributions. The location of defects and their correction is proportionate to the creation of a fearless work climate

QUALITY OF STAFF AND EDUCATIONAL PROCESS
Two most important factors in setting, maintaining and improving academic standards

LEADERSHIP FROM THE TOP
Encouragement of participation in decision-making. Senior staff create synergy and commitment to a vision and articulate goals and teamwork. Provides legitimacy for quality improvement.

PRECEDE STAFF AND STUDENT AFFIRMATIVE ACTION STEPS BY APPROPRIATE EDUCATION AND TRAINING PRIOR TO APPOINTMENT IN ORDER TO ENSURE STANDARDS AND A GOOD MEASURE OF SUCCESS AFTER PLACEMENT OR ENROLMENT

IDENTIFY ALL BENEFICIARIES AND SATISFY THEIR NEEDS

THE CRITICAL ISSUE IN QUALITY IMPROVEMENT RELATES TO EMPOWERING ALL STAFF TO ACHIEVE QUALITY IN EACH AND EVERY FUNCTION

MULTI-DIMENSIONAL NATURE OF STANDARDS/QUALITY MUST BE BORNE IN MIND DIMENSIONS INCLUDE INPUT, OUTPUT, QUALITY OF STAFF, EFFECTIVENESS OF TEACHING, DEMONSTRATED EXCELLENCE AND VALUE-ADDED.

QUALITY INVOLVES ALL STAFF AT ALL LEVELS - DEVELOPMENT OF HUMAN RESOURCES ACKNOWLEDGES EMPLOYEES AS THE BEST RESOURCE - ASSISTS STAFF TO PERFORM MORE EFFECTIVELY - NEED FOR A MAJOR TRANSFORMATION OF ORGANISATIONAL CULTURE (INCLUDES SYSTEMS, STRUCTURES, ACTIONS, ATTITUDES, NORMS AND VALUES)

UNIVERSITIES AND TECHNIKONS

LEGEND:
QA   - Quality Assurance
QMU   - Quality Management Unit (similar to HEQC in UK)
SERTEC   - Certification Council for Technikon Education
UAC   - University Accrediting Committee (Bitzer, 1991)

SOURCE: This author (T.C. Shippey)

6.2 Analysis of Model Five

6.2.1 Institutional Self-Evaluation (ISE)

Central to this model is the concept of ISE. Most recent studies done in the UK and Europe place ISE at the very heart of any quality assurance programme (UK, 1985; UK, 1991; Frazer, 1993).

In 1985 a Committee in the UK under the chairmanship of Sir Norman Lindop reported as follows:

> "The most reliable safeguard of standards is not external validation or any other outside control; it is the growth of the teaching institution as a self-critical, academic community" (UK, 1985).

This element of "self-criticism" or "self-evaluation" also emerges strongly in the HEQC Guidelines on Quality Assurance (1994) as does the related concept of internal quality auditing and the need for control procedures.

The lesson for the RSA is clear and it is interesting to note that ISE and its principles have more recently come to the fore in the technikon movement since SERTEC has declared that its thrust in future evaluation and accreditation will be based on ISE outcomes.

6.2.2 The Essence of the Model

The essence of Model Five lies in its provision of proven principles of maintaining quality awareness in HE. It also lies in the focusing of attention on critical issues in the assurance of staff involvement and understanding of matters relating to quality on a campus or in a system. The identification of the various beneficiaries and the satisfying of their needs and their perception of quality remains a vital theme in this quest for quality in HE and its illustration by means of this model.

6.2.3 Other Essential Elements

The other elements referred to in the central core of Model Five (Fitness for Purpose; Philosophy and Tools of SQM; Leadership from the Top; Quality of Staff and Educational Process; Fear Reduction; Benchmarking and Standards; and Management Information) have all been thoroughly analysed in this chapter or in preceding chapters.

The peripheral notes in Model Five serve to emphasise the findings of research bodies and writers in this field and have been used because of their aptness to the situation in the RSA. The philosophy and approach to standards/quality in HE which is reflected in the outer core of the model permeate this whole study and merely act as a reiteration of very acceptable principles which need to be utilised by the staff and management on each campus.

The assumption can reasonably be made (based on results achieved on a number of campuses such as Oregon State University and Fox Valley Technical College) that appropriate application of the processes and approaches set out in Model Five should result in an enhanced quality atmosphere and the establishment of an organisational culture which will encourage and nurture quality in all aspects of campus life.

7. RECENT PUBLICATIONS AND TRENDS

The very recent publications from the HEQC in the UK present an excellent review of quality assurance systems. The Guidelines on Quality Assurance 1994 (HEQC, 1994) and the useful Checklist for Quality Assurance Systems 1994 (HEQC, 1994) (see Appendix 8 for detailed summary), both present ideas and common-sense steps which could fruitfully be used by any HE system in any part of the world. The calibre of these publications is such that administrators, senior academics and leaders in HE could only benefit from a careful analysis of the suggested procedures.

Other publications which warrant careful consideration include
Assessment of the Quality of Higher Education (Centre for HE
Studies, 1994), What is Quality in Higher Education? (Green,
1994), Assessing Quality in Further and Higher Education
(Ashworth & Harvey, 1994) and Improving Higher Education: Total
Quality Care (Barnett, 1992). All four sources give valuable
insights into the latest developments in quality assurance in the
UK. They indicate clearly how advanced the systems in the UK are
and how much can be gained by applying the principles which have
been greatly refined in that country.

During 1993 a UK-based journal entitled "Quality Assurance in
Education" made its debut. It has effectively provided a
mouthpiece for those in HE whose concern centres on the provision
of quality assurance strategies and procedures. This journal
reflects the growing commitment to quality assurance which is
being shown by an increasing number of institutions throughout
the world (MCB University Press, 1994).

An exhaustive search of most of the major publications on quality
and standards in HE in countries which have sophisticated HE
systems, reveals that the work done in the UK has a simplicity
and a logicality which lends itself to emulation and is therefore
eminently suited to use as a model.

An examination of advertisements in the THES during the last few
years (1992-1994) reveals an interesting trend in the creation
of posts which relate to quality issues in HE. It indicates a
significant trend in HE institutions, not only in the UK, but in
sophisticated systems worldwide, namely, the appointment of staff
whose specific task concerns the maintenance of academic
standards, quality assurance and matters such as internal quality
audits and assessment (see Appendix 9 for details).

8. FINDINGS AND RECOMMENDATIONS

8.1 Lessons for HE in the RSA

The examination of the meaning of "standards" and "quality" in

selected HE systems and in our own system in the RSA, reveals much of value which can be gleaned from others.

Not the least of the lessons is the need for the universities in the RSA to be made more accountable to an independent body for accreditation and for an endorsement of their standards. In the USA the HE institutions are subjected, if they so choose, to careful scrutiny by various accreditation bodies, while in the UK the HEQC and the Funding Councils require a quality assessment audit which is demanding and thorough as well as the traditional external examiner approach. Surely our universities should be required to do more than merely involve external examiners in their evaluation of final year students. The success of SERTEC in the evaluation of technikons and in promoting quality assurance at those institutions should have pointed the way for a university system which has a number of relatively new institutions which have not been fully tested in the public arena. The reference to a UAC (University Accrediting Committee) in Diagram 12, which has been mooted by this author and by Bitzer (1991), offers a solution for the lack of accountability for quality and standards which is currently prevalent amongst some universities in the RSA.

The provision of "Quality Assurance Checkpoints" (as referred to by Asaka, 1990) could assist HE institutions in the RSA in their attempts to establish a procedure and a system of quality audits and assessments. The "Checkpoints" were derived from the Japanese quality assurance systems used in industry and commerce and were later adapted to a HE environment. It behoves the HE system in the RSA to take careful cognisance of the Japanese adaptations since they are based on vast experience over more than forty years (see Appendix 10 for a detailed list of the Checkpoints).

The publication of the findings of visiting bodies (eg HEQC) in the UK also results in an awareness among the beneficiaries of the balanced view of expert assessments of quality assurance steps taken by institutions. Public awareness of the findings

of visiting evaluation teams is greatly needed in the RSA. The fact that differing standards exist amongst our universities and amongst our technikons, has concerned students, parents and employers, especially those who are involved at the weaker end of the quality range of HE institutions. A body such as the HEQC would promote greater confidence and qualify what it means to gain a degree at a particular university in the RSA.

8.2 The Way Forward

8.2.1 SQM - A Key Factor

One of the themes permeating a part of this study has been that of strategy management and the need for cognisance to be taken of strategic quality management and its lessons for those in HE in the RSA.

The purpose of strategy management as it relates to quality improvement is to establish an organisation-wide, continuous improvement strategy and a deployment infrastructure which encourage all employees to focus on quality and move in a common direction.   All HE institutions need to understand these principles and apply them wherever possible, while those in the RSA, in particular, need to concentrate on involving all members of staff and not just a select few in certain academic divisions. It is also imperative to realise that what is implied here is that these concepts necessarily also apply to major divisions on campus (such as academic affairs, business and finance, and student affairs) and smaller units (such as a registrar's office or specific schools, units, and even academic departments) (Lewis and Smith, 1994:113).

The major components of strategy management include: mission, vision, goals and objectives, and culture values, norms, attitude and behaviour. SQM is more meaningful when analysed in terms of the total organisation - an entire HE institution.

8.2.2 Five Critical Functions

If TQM/SQM and continuous improvement are accepted by HE in the RSA then at least five critical functions, based on these principles, need to be established and nurtured. These functions are as follows:

> "(1) implement leadership for quality,
> (2) develop an organisational mission for quality improvement,
> (3) create a vision that inspires everyone to seek quality in all aspects of their work,
> (4) generate a culture that encourages quality improvement efforts at all levels, and
> (5) establish overarching goals and objectives consistent with the principles of total quality and continuous improvement" (Lewis and Smith, 1994:113).

8.2.2.1 Leadership

The concept of leadership occupies a central position in quality improvement. An examination of Deming's fourteen principles (see Appendix 2), and especially his seventh point "adopt and institute leadership", shows that success in TQM requires leadership (Deming, 1986). Leadership is the enabling catalyst for positive change and for a successful intervention at the strategic management level. Such leadership must be provided by individuals who occupy the central management positions at a college, technikon or university and who have the broad authority to implement change. The need in the RSA is to provide a framework for actualising leadership at the central or executive level.

The creation of a "quality council" consisting of the top leaders in an organisation provides a forum for initiating and co-ordinating the strategy of quality improvement efforts. The importance of such a council is emphasised in a publication in

the US:

> "By establishing a Quality Council, top management
> provides identity, structure and legitimacy to the
> quality improvement effort. It is the first concrete
> indication that top management has recognised the need
> to improve and has begun to change the way the
> organisation conducts business. The direction this
> change will take becomes clear when the Council
> publishes its vision, guiding principles and mission
> statement" (US, 1989:18).

8.2.2.2 Mission

The first step in setting and maintaining the direction of a HE
institution is the development of an institutional mission
statement. Such a statement is the formal expression of the
institutional purpose for members of the institution, its
constituents, and the public at large. One of the contributions
which the quality improvement effort makes to the vitality of a
HE institution is to draw attention to the institutional mission
and its development.

It is reasonable to assume that successful strategy development
is encouraged by a clear sense of organisational mission. Such
mission statements need to help in determining which services
(teaching, research, etc) are, or are not, appropriate in the
eyes of the customer/beneficiary (Sherr & Teeter, 1991:8). The
status of a mission can be partially determined by asking
questions such as:

> *   *"Is there a clear statement of the mission of the
>   college/university?*
> *   *Has this statement been shared with all members
>   of the institution?*
> *   *Do members of the institution know about the
>   mission statement? (Could they describe it if
>   asked?)*

* *Is there a consensus on the institutional mission?*

* *Is the behaviour of institutional members influenced by the mission?" (Lewis & Smith, 1994:119).*

8.2.2.3 Vision

An institutional vision indicates what and where the college/university/technikon wants to be during the decade ahead. A statement indicating that vision should be agreed upon by all the institutional members and should be positive, and reasonable while also presenting a challenge.

The increase in the popularity of vision statements may partly be ascribed to the successes achieved by vision-directed organisations as has been reported in the past (Peters & Waterman, 1982). Because a vision indicates direction it should not be confused with a mission which states what institutional purpose is. In stating what a vision cannot be, Nanus (1992) identified a number of points including the following:

* *"A vision is not factual. It does not exist and may never be realised ... It deals not with reality but with possible and desirable futures.*

* *A vision cannot be true or false. It can be evaluated only relative to other possible directions for the organisation.*

* *A vision is not - or at least should not be - static, enunciated once for all time.*

* *A vision is not a constraint on actions, except for those inconsistent with the vision" (Nanus, 1992:31-32).*

There are many benefits to be derived from a clearly stated vision. However, it is clear that a vision is a creative leap of faith that transcends, but does not ignore, facts. It requires hindsight, foresight, and insight (Lewis & Smith,

1994:121). The creation of an appropriate vision is a necessary prerequisite for quality implementation.

8.2.2.4 Organisational Culture

The structured ways of feeling, thinking, and acting that are shared by the members of a HE institution are referred to as the organisational culture. Such culture, which is essential for quality implementation, includes systems and structures, actions, roles, behaviours, attitudes, norms and values. In other words these are the pointers which provide the basis for operation. Authors such as .Chaffee and Sherr believe that the implementation of total quality will call for a major transformation of organisational values, norms, structures and processes. In other words, the culture of a HE institution will have to be transformed if quality improvement efforts are to be successful (Sherr & Teeter, 1991:8) (Refer also to Appendix 11).

Carr and Littman identified nine steps in the cultural transformation process of which steps 5,6 and 9 are appropriate in this context:

> *"5. Making organisational and regulation changes that support quality action.*
> *6. Redesigning individual performance appraisal and monetary reward systems to reflect the principles of total quality management.*
> *9. Using communication tools to reinforce TQM principles" (Carr & Littman, 1990:190).*

8.2.2.5 Goals and Objectives

Once overarching goals and objectives have been established for a HE institution then a link can be provided between the macro-level focus of mission, vision, and culture, and the operational activities of the organisation. Goals and objectives which have been carefully devised provide a level of specificity which is needed to activate the mission and vision of the

technikon/college/university.

Goals and objectives help determine the direction and future
(what Lewis and Smith, 1994:129 called the "should be" and the
"could be"). They enhance organisational planning and encourage
the assessment of resources which are needed to achieve the
goals. Well-articulated and well-communicated goals and
objectives will encourage staff to share and achieve the vision
of the institution and also provide a broader picture which will
unite the staff by focusing their effort on the institutional
mission and vision. By affirming the vision, by identifying
strategic goals, by determining objectives, by selecting
activities and developing projects, and by selecting inputs, one
collectively determines the quality and scope needed to achieve
the mission and vision of the HE institution.

9. EPILOGUE

9.1 A Conflict Situation

Governments in many countries, including the RSA, have begun to
have a renewed interest in expanding their HE systems. However,
HE is both capital and labour intensive and is therefore a high-
cost service which can partially be funded by reducing the unit
cost per student. This results in a conflict of interests
between expansion of student numbers and the reduction of unit
costs. Such squeezing of the resources results in doubts
emerging about the quality of a system's products. The questions
are inevitably asked: Can the ensuing quality gap be bridged or
is a gap inevitable? Is it possible to maintain quality while
also increasing numbers and lowering unit costs? (Barnett,
1992:1).

For this reason "quality/standards" have become key words in the
public debate about HE in the RSA and in other countries.
Quality of HE is one of three central issues, alongside those of
access and funding. However, the extent of governmental and
public interest in matters of quality in education should not be

construed as an indication that people have a clear sense of what quality is or might be. This then is the very stuff of which this study is made, namely, what quality is or might be. This study is intended to help clarify the many issues relating to quality in general and quality in HE more specifically in order to resolve the questions raised above.

9.2 Understanding Quality - A Final Summary

In trying to get a purchase on quality within the HE context, the following tendencies have emerged among three important players. In a number of countries the state favours performance indicators as a quantifiable, identifiable means of assessing quality. In this study it is clear that the academic community tends to favour peer review, while the market-led systems usually promote consumer-oriented approaches to quality assessment. There can be no doubt that these three approaches are pulling against each other although a shift is coming about which moves from peer review to state-led performance indicators and to market-led approaches.

The conclusions reached by this author are summed up earlier under the review of each of the final quality models and more particularly the SQM pattern which effectively utilises all three approaches as mentioned above.

The debate about quality and its elusive nature continues into the sociological realm where significant shifts have taken place. These include a shift from systems for the few to systems for the many (Trow, 1987); a shift from a HE which has been essentially part of the cultural apparatus of society to a HE which is much more part of the economic apparatus of society (Gellner, 1964:Ch.8). Also included is a shift from HE being a personal and positional good to being more of a wider social good and of having a general societal good. Another shift is that from HE being valued for its intrinsic properties to its being an instrumental good, especially for economic survival amidst expanding world markets (Barnett, 1992:5).

Throughout this analysis of quality the debate has ranged from the views of the technicist, the collegial or academic community, the epistemologist, the consumerist, to those of the employers, the professional bodies, and the inspectorial voices of the state or external agencies. The debate over quality in HE could be construed as a power struggle, as an amalgam of alternative concepts which are also coupled to philosophical and sociological perspectives.

This whole study has been mainly a conceptual enquiry, examining some of the key ideas of the contemporary debate about quality and standards. However, it has not been purely conceptual since the insights generated from these explorations have provided some principles for action. It has also resulted in the creation of a number of models which embrace TQM/SQM and other quality measures in their application to HE. Practical suggestions in four areas have also been realised as a result of this study. These areas include ways in which institutions can improve the quality of their programmes; the assessment of institutional performance; programme/course review; and improving the character of the student experience. In short, this study has been an exploration of the quality/standards milieu in higher education both nationally and internationally and is addressed to anyone who cares about the quality of higher education and who is interested in its improvement.

It has been suggested that amongst the confusion and the divergent views on quality there is one sense in which an overarching theory of quality is possible, namely, in the sociological sense. Although closing remarks do not present an appropriate place to develop such a theme it is necessary to refer briefly to it.

The contemporary debate over quality, which has arisen quite recently and suddenly in the western world, given the almost one thousand years of history of HE, represents a fundamental shift in the relationship of HE to society. The quality debate is indicative of the host society making new claims on HE as a

social institution.

HE has only recently (relatively speaking in the light of its long history) begun to change to an institution of an industrial and bureaucratic society. It is no longer a small affair on the fringes of society but has become a main player in institutional life, offering key functions in the formulation and dissemination of knowledge, on which the post-industrial society rests. A recent statement published in the UK expresses this development rather aptly:

> "... the rhetoric of 'quality' is a new-found importance attached to higher education by modern society, and is an expression of the closer relationship between the two now demanded. It is also a reflection of the sense within the host society that higher education has not sufficiently adjusted to the demands of the age" (Barnett, 1992:214-215).

The debate over quality can be summarised thus. From the Middle Ages until comparatively recently the period was one of "enchantment" since HE was mysterious and few were involved. Its quality was not at issue and it was seen as self-justifying. Next came the modern age and the entry of "disenchantment" because society is no longer prepared to accept that HE is self-justifying. Words such as "accountability" now enter the debate as does the desire for transparency, and systems of evaluation are being imposed on HE institutions which are not necessarily appropriate.

The third stage of quality maintenance is one of "engagement" which is not controlled only by the academic community. This stage is judgemental, open, binding on every participant in the academic community, it is critical (especially self-critical), collaborative (including the students), eclectic in its approach, and willing to draw on all the available evidence (Barnett, 1992:216). According to Barnett (1992:216) this "engagement" stage is driven by two main considerations: that the central

activity of HE is that of educating individual students; and
that it is the continuing improvement in the educational
processes that lies at the centre of our concerns over quality.
He calls this approach "total quality care". Barnett ends his
discourse on assessments of quality in this way:

> "There is no reason why our understanding of quality
> has to be arrested at the disenchantment stage; in
> theory, our approaches to quality could move on to the
> third stage of engagement. However, the principal
> actors - students, academics, the state, employers and
> professional bodies - all have other agendas, and it
> is doubtful whether a sufficient constituency exists
> for the approach being suggested here. I am happy to
> be proved wrong" (Barnett, 1992:217).

9.3 Access

The basic research hypothesis, stated early in this study, refers
to the large numbers of underprepared students seeking entrance
into HE institutions and the likelihood of a resultant lowering
of standards if access is provided too easily by means of an
"open door" enrolment policy. This problem is not peculiar to
the RSA but it has been exacerbated by the legacy of more than
fifty years of apartheid in schools and in HE in the RSA. The
question of access presents a daunting task to those in decision-
making posts in HE since the expectations and aspirations of vast
numbers of people have been aroused and they are demanding the
restitution of their rights.

Three recent publications, one prior to the advent of the new
government in April 1994 in the RSA, and two shortly thereafter,
present the African National Congress (ANC) and the Government
of National Unity viewpoints on access.

9.3.1 A Policy Framework

A Policy Framework for Education and Training (ANC, January

1994), which was a draft document for discussion purposes only, refers in Section 24 on Higher Education, to the question of access. It states that the future of HE stands or falls on how the country manages the "pent-up demand" for access and equity (ANC, Jan 1994:112).

The ANC document proposes that access of disadvantaged students to HE institutions be increased as a first step towards the goal of ensuring that the student bodies reflect the composition of the broader society (ANC, Jan 1994:115). It furthermore proposes that admissions criteria and procedures will need to change in order to facilitate the increased access of disadvantaged students. It also states that recognition must be given to student potential and not only to school qualifications or matriculation results.

The view is expressed that access and success within HE institutions can further be enhanced by the introduction, where appropriate, of undergraduate formative degrees designed to provide a suitable mix of subjects with a science and arts/humanities base (ANC, Jan 1994:115).

A point which is emphasised relates to the integration of academic development programmes into mainstream educational programmes and that they be financed through the state subsidy. This is crucial in order to ensure that increased access does not lead to a "revolving door" for disadvantaged students due to high failure and drop-out rates (ANC, Jan 1994:116).

9.3.2 Implementation Plan

The Implementation Plan for Education and Training (ANC, May 1994) is not regarded by the ANC as a blueprint for action but rather as a working platform on which to build.

Reference is made in this document to access and the demand and capacity for new enrolments in 1995 (p. 369). Mechanisms are also called for to ensure horizontal and vertical mobility and

flexibility of access between the formal and non-formal educational sectors (p. 370). The National Commission on Higher Education (NHCE) will be responsible for recommending the structure and size of the HE system in order to achieve a comprehensive national system of access, articulation and accreditation (p. 370).

Referring to "Access 1995" (p. 376) the document implies that access for 1995 may be a major problem due to the large reservoir of matriculated students who have not yet entered HE. A very conservative estimate suggests that enrolments in universities and technikons could increase by nearly 400 000 between 1992 and 1999 - from 466 000 to 833 000. The capacity of institutions to absorb such increases in 1995 is a very complex matter, state the authors of the Plan (ANC, May 1994:376).

9.3.3 Draft White Paper

The "Draft White Paper on Education and Training" was published in the Government Gazette on 23 September 1994. In the brief section (p. 18) dealing with HE, specific reference to access is not made but the effects of rapid enrolment growth are mentioned. The point is alluded to that the NCHE will have to deal with access and enrolment in its report and the fact that the proposed National Qualification Framework is also referred to, implies that the whole question of access and accreditation in HE will be high on the agenda of change (RSA, 1994:13).

9.4 Access and Quality

In the three publications referred to, the references, both direct and indirect, to the provision of greater access to HE for larger numbers of disadvantaged students from 1995 onwards, is a matter of great concern for HE institutions in the RSA. While some institutions may have excess accommodation and funding to provide for limited increases in numbers of students, most will certainly not be able to cope with a sudden influx of poorly prepared students. A lowering of standards/quality is almost

inevitable should such increases actually occur since so many overstretched resources (especially human resources) will have to be channelled into the extra efforts which will be required to uplift the disadvantaged.

The suggestions/hints that a far greater percentage of the education budget will be moved into the primary and secondary education sectors, implies that the HE sector subsidies will be cut even further. Such reductions will make the HE sector even more vulnerable than it currently is and less able to cope with an influx of students. While it may be conceded that all HE institutions could surely reduce wastage and unnecessary expenditure even further, there is a limit to such exercises. Eventually reductions and cut-backs can reach such proportions that equipment becomes outdated and redundant and staff become demotivated. The entry of large numbers of disadvantaged students into such a milieu would be disastrous and would not augur well for anyone's future since quality and standards are inexorably linked to an institutions's ability to provide a meaningful service to its students.

9.5 Funding

In the three documents referred to in 9.3, the question of the funding of HE is referred to in several places. In the ANC's Policy Framework the main reference to provision of funding (pp. 114-115) relates to the present funding formula for HE. The formula will be reviewed and restructured in terms of the need to expand the system, redress institutional inequalities and increase the intake of disadvantaged students. Emphasis will be placed on an incentives-driven financial system (ANC, Jan 1994:115).

The cost of HE qualifications represents a social and individual benefit and therefore will have to be shared by the state and individuals. Mechanisms of state funding will be developed which allow for the co-ordinated development of HE, the diminution of inequalities between sectors and institutions and the enhancement

of quality. Disadvantaged students will be supported by bursaries, scholarships and a national loan scheme (ANC, Jan 1994:115).

The ANC's Implementation Plan includes reference to the need for the NCHE to investigate financial policies for institutions and students which are consistent with the human resource components of national and provincial reconstruction and development plans. The need to provide enhanced financial aid to help with student loans and bursaries is repeated in this document (p. 377). Under the heading "Funding" two issues were further addressed, namely, the spiralling student financial crisis and the worsening situation of the historically black universities (HBUs).

The Draft White Paper does not refer in particular to the funding of HE except in a statement requesting the NCHE to examine, amongst other factors, the issue of funding (RSA, 1994:19).

9.6 Funding and Quality

As is the case with access and quality, which are directly linked, so funding and quality are inevitably bound together. Inadequate funding often results in the provision of less competent and qualified staff, a lack of appropriate equipment and facilities and an atmosphere on a campus which is not conducive to study or progress.

The converse is not necessarily true since a plentiful supply of money does not guarantee quality or high standards on campus. Good funding needs to be wisely expended and judiciously used in the provision of genuine and carefully identified needs.

The fact that HE institutions in the RSA are very uncertain about the provision and extent of their subsidies for 1995 results in a measure of apprehension about the future and a feeling of futility. The need to reduce unwise and extravagant spending on campus is acknowledged by leaders in HE. However, what is not understood or accepted is the regular and increasing reductions

in subsidies which lead to a current funding in HE institutions of between 50 and 70 percent of an acceptable funding factor.

A large increase in student numbers in HE institutions without a concomitant increase in funding, especially in the light of subsidy cuts and additional cuts to the HE sector for special projects, will be tantamount to an invitation to disaster since all systems have limited tolerance levels.

9.7 Closing Remarks

It is part of the lore of TQM/SQM or continuous quality improvement (call it what you will) that one can never reach the position where one can say, "This is it! This is quality! We have arrived!" The TQM/SQM theme is central to this study and any HE institution which embarks on the journey advocated in the five models should realise that it is a journey that has no ultimate destination since one is travelling towards total quality management (Storey, 1993:37).

What is advocated is quite simply a quality assurance strategic plan for each HE institution which moves forward, on a five-year cycle, to continued functional and developmental training, quality measurement and costing, the use of TQM/SQM tools and methods and the establishment of quality networks.

Within such a strategic plan it must be clear that quality assurance is the process whereby customers, producers or any other interested parties are satisfied that standards will be consistently met. In order to provide such assurance a system of quality management is necessary. Part of this system will be quality control, whereby conformity with standards is checked and steps are taken if conformity is not achieved. The quality management system may be checked to see if it actually exists and works; this is a quality audit. The products (students) or services (eg consultation) in HE may be checked externally to see if standards are being met; this is quality assessment. Finally, there should be a commitment to improvement and

development; this entails quality improvement or enhancement (Ellis, 1993:3).

Quality assurance in HE can be construed in a number of ways and it is appropriate in closing to sum these up:

Firstly, quality assurance has long existed in HE and a set of procedures is well-established. External examination, course/programme validation, professional review bodies, peer review and also the publication of examination results, could all be considered as aspects of quality assurance for HE teaching. However, such procedures can always be improved and although established in most systems they nonetheless require explicit identification to be manifested more effectively.

Secondly, the view exists that quality assurance, as practised elsewhere (outside the HE systems) represents a new approach to the establishment and maintenance of standards/quality in HE institutions. Imported from industry and commerce, such approaches will give HE a necessary shake-up and in the process make it more accountable, student-oriented and cost-effective. Quality assurance of this sort, as has been referred to throughout this study, will thus involve a radical reorientation of the approach to their work by HE institutions. This is where great interest in industry-derived approaches such as TQM and BS5750 arises.

Thirdly, the view has been stated (Ellis, 1993:7) that HE institutions have a long way to go in order to assure quality for their teaching and programmes and therefore they need to establish systems and approaches which are distinctive and which match the special needs of the academic world. The basis for many of these procedures already exists in HE but some injection of outside ideas (derived from the business/industrial world) is needed for the growth and improvement of the system. A system should thus develop which is customised for HE institutions.

These three views (among many others) are not mutually exclusive

and can be combined in order to develop the most effective model for implementation. A common theme in all approaches to quality assurance is the central importance of staff - this is even more obvious when an organisation offers a service, the nature of which is interpersonal (such as teaching in a HE institution). Supporting this central teaching activity is a complex structure of administrative and service departments. Managing quality for teaching therefore involves, directly or indirectly, the entire staff of a HE institution. If there is to be progress in quality assurance for teaching then each institution is faced with a vast exercise in staff development and organisational change.

Finally, it is fitting to refer to the remarks made at the outset of this study (in the "Acknowledgements"), namely, that this examination of standards and quality in HE provides a foundation and a theoretical basis for further research in this field. Furthermore, this study is primarily intended to stimulate thought in this direction and to stir the thoughts of those who make significant decisions at the higher education level.

APPENDIX 1

The following detailed analysis of Diagram 3, CAUSE-AND-EFFECT DIAGRAM, provides explanations of each of the elements of the ribs of the fish bone diagram. These details are drawn from the implementation of TQM in industry and commerce. However, the application of these principles to higher education institutions is quite feasible as is apparent from the models provided in Chapter Eight.

Tools

Central to TQM are the development and application of tools which managers and employees can use to examine their work processes, identify opportunities for improvement, analyse problems, and implement solutions. Four kinds of tools are most common: (1) statistical tools for the collection and analysis of data for preventive problem solving: (2) formal problem-solving processes; (3) specific quality improvement processes, involving identification of customers and their requirements, translation of those requirements into standards for suppliers, measurement of outputs, and determination of why outputs do not meet the standards; (4) group or teamwork tools in order to enhance team effectiveness.

Training

Managers and employees at all levels require extensive training in the concepts and tools of TQM. Training will usually include increasing awareness of quality, its importance, and its costs; problem-solving tools and skills; and, where necessary, the role and required behaviour of managers. Such training is given to large numbers of people so that the entire organisation can speak the same language and work with compatible tools.

Measurement and Information

A major component of TQM is the development of useful and relevant measures for preventive problem-solving, identifying opportunities, planning for quality, and assessing progress. Often, new measures and data are needed that are linked to customer perceptions (external and internal), competitive benchmarking, process performance and improvement, as well as outputs. Some measurement of the cost of quality is important, although more as a catalyst for raising awareness, motivating change, and identifying opportunities for improvement than as a financial yardstick by which people are judged.

Technical Support

Training is often not enough to help employees to effectively apply the quality tools to real problems, products and services, and work flows. In order to prevent frustration and difficulty, special support resources are often provided, as either quality specialists or facilitators.

Management Behaviour

Managers make or break the implementation of TQM. First, they need to provide the leadership to guide the organisational and cultural changes required for continuous quality improvement. Second, managers should actively participate in specific decisions appropriate to their level. Third, managers need to create an environment which will encourage, support, and enable their subordinates to take responsibility for quality improvement.

Transition Management Structures

A variety of transition management elements is useful, including the creation of special roles (quality officers, managers, facilitators, specialists), groups (quality implementation teams, councils, steering committees), and processes (quality reviews, quality goals).

Although such structures are temporary, until quality becomes an inherent part of how the company is run, they appear to be necessary during the initial years.

Reward and Recognition

To most employees, producing a quality product or service is intrinsically rewarding; however, many companies have recognised the need to modify or replace existing reward and recognition systems. This helps to sustain quality improvement as a continuing process as opposed to a once-off programme. Both tangible and intangible rewards are important in sustaining motivation.

Communications

An essential component is intensive and systematic communications to employees at all levels via multiple methods and media. The content will vary at different stages of implementation, but typically progresses from awareness and need to commitment, activities, and rewards and recognition. Employees should be given opportunities to voice their concerns, perceptions, and suggestions.

APPENDIX 2

W. EDWARDS DEMING'S MANAGEMENT OBLIGATIONS*

1. Create constancy of purpose for the improvement of product and service.
2. Adopt the new philosophy; we are in a new economic age. Customers will no longer stand for past levels of mistakes, delays, defective products and poor workmanship. Furthermore, increasing quality does not necessarily mean increasing cost.
3. Use modern science. Cease dependence on inspection to achieve quality. Quality cannot be inspected into a product or service.
4. End the practice of awarding business on the basis of price tag. Instead, minimise total cost by working with a single supplier. Keep TOTAL costs in mind not partial costs.
5. Improve constantly and forever the system of production and service, to improve quality and productivity, and thus constantly decrease costs. Find problems. Management must work continually on the system.
6. Never stop training on the job.
7. Improve supervision of workers and managers. Institute leadership. The aim of leadership should be to help people, machines and gadgets to do a better job.
8. Drive out fear, so everyone may work effectively for the organisation.
9. Break down barriers between departments. An organisation must work as a team.
10. Eliminate slogans, exhortations and targets for the work force.
11. Eliminate work standards that have only numerical quatas. Substitute leadership. Eliminate management by objectives. Eliminate management by numbers and numerical goals. Substitute leadership.
12. Remove barriers that rob people of pride in workmanship. Eliminate the annual rating or merit system.
13. Institute a vigorous programme of education and self improvement.
14. Put everybody in the organisation to work to accomplish the transformation. The transformation is everybody's job.

* Based on material presented in: W. Edwards Deming, <u>Out of the Crisis</u>, Centre for Advanced Engineering Studies, Massachusetts Institute of Technology, 1986.

APPENDIX 3

Quality Process - Education
(DACUM Chart)

<-------------------------------- Tasks -------------------------------->

Demonstrate Management Commitment →

Attend Orientation & Awareness Training (Senior Exec)	Establish Quality Policy for Organisation	Allocate Funds and Resources to Support the Process	Establish a Quality Steering Council	Appoint a Quality Coordinator	Communicate Commitment to all Levels	Participate Actively on Committees and Study Teams	Serve as Quality Models in Organisation
Walk What You Talk (Model Quality)	Meet with Customers						

Establish a Quality Improvement Council →

Provide Framework for Quality Process	Determine Strategies & Timetables for QIP	Provide Liaison to QIP Committees	Approve QIP Budget	Select Quality Council Members	Monitor Progress of QIP	Review QIP Model and Modify as Needed	Plan Integration Over Time

Determine Cost of Quality →

Appoint a Measurement and Costing Committee	Identify Measurement Criteria for Organisation	Set Performance Standards in each Operation	Select Costing Plan	Select Cost of Quality Conformance Elements	Select Cost of Quality Nonconformance Elements	Determine Initial Cost of Quality	Continually Monitor the Cost of Quality
Set up Model for Work Unit Costing	Assist Work Unit Costing Process	Keep QIC Informed					

Provide Education and Training →

Provide CEO & Senior Management Training	Conduct Management Awareness Training	Conduct Support Staff Awareness Training	Provide Instructor Awareness Training	Provide Board Member Awareness Training	Conduct Management QIP Training (Application)	Provide Instructor QIP Training (Application)	Provide Support Staff QIP Training (Application)
Prepare a Professional Growth Plan for each Person	Keep QIC Informed						

Source : FVTC, 1991:52

Quality Process - Education
(DACUM Chart)

< ·· Tasks ·· >

Identify Roles and Establish Performance Requirements →

Define Roles to Facilitate QIP in Organisation	Establish Written Performance Requirements for Each Person	Involve All Employees in QIP	Involve Employees in Decision Making	Implement QIP in Day to Day Work			

Implement a Quality Communication System →

Establish an Awareness Committee	Develop a Planned Programme of Awareness	Infiltrate Organisation with Information on QIP	Prepare Newsletter Information on Quality	Distribute Minutes of QIC Meetings to all Employees	Write Annual Report on Quality	Keep QIC Informed	

Measure and Set Goals →

Establish Measurement/ Costing Committee	Establish Long-Range Goals for QIP	Integrate QIP with Strategic Planning Process	Determine Quality Elements	Write Conforming Requirements for Elements	Determine Measurement Strategies for each Requirement	Establish Work Unit Goals for Quality	Determine Whether Goals are Reached Through Measurement
Collect Data and Chart Results	Keep QIC Informed						

Identify and Eliminate Problems →

Establish Work Unit Teams	Select Team Facilitator	Provide Training in Team Building	Provide Training in Conflict Resolution	Provide Training in Problem Solving	Select and Define Problems	Analyse Current Process	Prepare Cause and Effect Diagram
Collect and Chart Data	Display Data and Set Goals	Solve Problem	Monitor Solution Through Continuous Analysis				

Quality Process · Education
(DACUM Chart)

<--- Tasks --->

Duties								
Research and Develop New Initiatives →	Establish Research Design	Conduct Organisational Climate Survey	Distribute Results of Organisational Climate Survey to all Staff	Conduct Student Satisfaction Survey	Distribute Results of Student Survey to all Work Units	Conduct Employee Satisfaction Survey	Distribute Results of Employee Satisfaction Survey	Conduct Community Perception Survey
	Distribute Results of Community Perception Survey	Conduct Instructional Audits	Conduct Non-Instructional Audits	Integrate all Research into one Report	Keep QIC Informed			
Create a Structure for Employee Involvement →	Encourage Membership on Quality Committees	Set up Team	Provide Training in Team Building	Provide Training on Problem Solving	Encourage Participatory Management	Flatten Organisational Structures	Remove Barriers to Communication	
Establish Accountability →	Prepare Manager Elements	Write Quality Performance Standards for each Manager	Promote Quality Through Manager Objectives	Have Each Manager Prepare Quality Progress Reports	Establish Compensation Incentives for Quality Improvement			
Launch a Customer Revolution →	Establish a Customer Service Committee	Establish Customer Service Elements	Identify Educational Customers	Provide Training in Customer Service	Conduct Customer Satisfaction Surveys	Ask Customers How Well You're Doing	Handle Customer Complaints Quickly	Set up Suggestion Box System

Source : FVTC, 1991:54

Quality Process - Education
(DACUM Chart)

<—·· Tasks ··—>

| Duty								
Recognise, Reward, and Celebrate →	Establish a Recognition Committee	Establish a Quality Commitment Day Committee	Review all Programmes of Recognition Currently in Place	Coordinate the Total Recognition Programme	Establish Recognition Programmes Specific to Quality	Plan and Conduct Annual Quality Commitment Day	Plan Annual Employee Recognition Day	Conduct Annual Quarter Century Dinner
	Establish Requirements for Quality Awards	Review Quality Award Nominations and Select Winners	Keep QIC Informed					
Conduct Quality Audits →	Establish Quality Audit Committee	Set Up Criteria for Quality Audit	Recommend and Select Audit Team	Orient Audit Team to FVTC	Organise Written Documents for Audit Team Review	Handle Logistics of the Audit	Arrange for Preparation of Audit Report	Disseminate Audit Report Throughout College
	Keep QIC Informed							
Link to the Community →	Establish an Advisory Committee	Organise a Quality/ Productivity Resource Center	Identify Current Resources on Quality	Plan and Conduct Quality Network Programmes	Prepare and Distribute Q/PRC Newsletter	Solicit Beacons and Other Members	Conduct Quality Training for Business and Industry	Conduct Training for Other Educators
	Keep QIC Informed							
Strive for Continuous Improvement →	Maintain QIC Liaison to each Committee	Set up Rotation Programme for QIC	Rotate Committee Members	Rotate Quality Coordinators	Rotate CPI Coordinators	Continue to Review Model	Hold Annual Retreat for QIC	Prepare Annual Report on Quality

Source : FVTC, 1991:55

APPENDIX 4

QUALITY IMPROVEMENT COUNCIL MISSION

To totally integrate a quality improvement effort into the learning process and the workplace at Fox Valley Technical College

It is our vision to be:

- A school that knows what its customers want and need now and that has processes in place to determine customer wants and needs as they change in the future

- A school that knows what it will do to meet or exceed customer requirements

- A school whose employees understand their jobs, are motivated to do their jobs, and understand how to significantly improve their jobs on a regular basis

- A school where problems and challenges are addressed and resolved using statistical thinking processes by teams of the most appropriate people from across the school

- A school where graduates have demonstrated skills and abilities to perform in a work environment that demands involvement in shared management and continuous improvement activities

Note: Based on Oregon State University's interpretation of the TQM Vision as stated in Hoshin Planning: The Developmental Approach by Bob King, 1989, Goal/QPC.

APPENDIX 5

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                        TREE DIAGRAM - HOSHIN PLANNING PROCESS

                                                              team
                                                              develop-
                                                              ment
                                             education              assess  solicit   determine
                                             teams                  needs   interest  readiness
                                                              process       from      criteria
                                                              improve-      teams
                                                              ment
                    improve
                    process
                    through       use        develop
                    (PDCA)        PDCA        process
                    Plan                      improvement
                    Do                        action plan
                    Check
                    Act

                                             provide         develop        determine
    Satisfied                                resources       resources      resources
    Customers  ---- Teams                                                   needed

                                      reward process improvement efforts

                                      educate staff in value of process improvement
                    value
                    process
                    improve-        create network of process improvement efforts
                    ment

                                      model process improvement
    Source: FVTC. 1991:57
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APPENDIX 6

Extracts from a booklet published by Fox Valley Technical College entitled: Quality First Process Model (Second Edition, 1991). Permission for the reproduction of these extracts was granted to this author by the Fox Valley Technical Foundation, Inc.

STEP 1 - DEMONSTRATE MANAGEMENT COMMITMENT

Management has the power to make decisions that will create a quality organisation. Their commitment must be assured first, so that management staff members are the role models for other employees. Management creates the quality environment which employees enter after training.

STEP 2 - ESTABLISH A QUALITY IMPROVEMENT COUNCIL

A Quality Improvement Council needs to be established very early to define the process and to develop its framework. This council then sets the process in motion and continues to monitor it. Membership on the council should include a cross-section of the organisation.

STEP 3 - DETERMINE THE COST OF QUALITY

The quality movement was born out of a need to stay financially competitive. Careful determination and continual monitoring of the cost of quality is essential to the process - providing a critical measure of its success.

STEP 4 - PROVIDE EDUCATION AND TRAINING

All members of the organisation need to be educated in the background of the quality movement and the fundamentals of a quality improvement process. Just as important, employees need training in the skills necessary to implement a process successfully - communication, problem solving, teamwork.

STEP 5 - IDENTIFY ROLES AND ESTABLISH PERFORMANCE REQUIREMENTS

Employees need an opportunity to identify their role in the process and in the organisation so that they can immediately begin to implement quality in their day-to-day work. Old requirements need to be reviewed in the context of the organisation's quality process, and new requirements need to be established. requirements that are clear and valid are the basis of problem prevention.

STEP 6 - IMPLEMENT A QUALITY COMMUNICATION SYSTEM

Communication, always critical, becomes even more so in the midst of widespread organisational change. The effort to communicate information about the quality process must be comprehensive and sustained. The organisation should analyse its existing communication system to ensure that it can meet this requirement - an important component of problem prevention.

STEP 7 - MEASURE AND SET GOALS

Quality theorists offer a variety of approaches to measurement, but all agree that continuous measurement is essential. Goals should be set based on measurement. Measurement should be used to determine whether goals are reached - a continuous cycle.

STEP 8 - IDENTIFY AND ELIMINATE PROBLEMS

An effective quality improvement process prevents problems through research, planning, clear requirements, and good communication. When obstacles to getting the job done right the first time do appear, they must be permanently eliminated. A climate that encourages the identification of these obstacles and insists upon their removal must be established. A mechanism to make it happen must be developed.

STEP 9 - RESEARCH AND DEVELOP NEW INITIATIVES

Research is the foundation for planning and prevention. The organisation needs to keep up with developments in the application of quality theory, as well as developments in the delivery of products and services relevant to the organisation.

STEP 10 - CREATE A STRUCTURE FOR EMPLOYEE INVOLVEMENT

An opportunity for every employee to participate in the quality improvement process should be provided. The primary strategy to achieve participation is the establishment of teams.

STEP 11 - ESTABLISH ACCOUNTABILITY

Accountability is absolutely essential! Valid requirements that have been agreed upon and articulated must be met every time. Personal and process accountability procedures need to be developed and adhered to strictly.

STEP 12 - LAUNCH A CUSTOMER REVOLUTION

Every successful quality improvement process has at its heart an obsession with customer satisfaction. The efforts of every employee must be ultimately targeted at establishing and meeting or exceeding customer requirements.

STEP 13 - RECOGNISE, REWARD AND CELEBRATE

Quality happens when people make it happen. The people who make it happen, individually and in teams, should be generously recognised and appropriately rewarded. Their successes should be joyously celebrated!

STEP 14 - CONDUCT QUALITY AUDITS

An independent audit of the quality process is essential. Internal measures provide information on the success of the process. An external audit provides an additional crucial perspective.

STEP 15 - LINK TO THE COMMUNITY

A quality process, developed and implemented with the understanding and support of local business, industry, education, and government, has a greatly increased chance of succeeding. At the very least, communication about quality with these groups needs to be established and maintained. Wherever possible, partnerships in quality need to be established and nurtured.

STEP 16 - STRIVE FOR CONTINUOUS IMPROVEMENT

The commitment to a quality approach to doing business involves an endorsement of the philosophy, "If it works, make it better." The process is neverending. it is endlessly adaptable to changing technology and a shifting marketplace.

APPENDIX 7

The Seven Criteria - Applicability to Higher Education (NIST, 1991:40)

1. Leadership (10 percent weighting)

This criterion focuses primarily on how senior managers create and maintain a clear and visible commitment to quality through both the values which they publicly espouse and the specific management direction which they provide.

For the institution as a whole, this criterion implies the following review questions:

A. "What is the level of personal involvement of the Vice-Chancellor/Rector and his Deputy Vice-Chancellors/Vice-Rectors in creating a culture of quality improvement?"

B. "What place is given to quality improvement as a central philosophy of the institution in its public documents and communications?"

C. "Is there a clearly visible set of formal quality review processes in place and operating at the institution?"

For academic programmes, this first criterion suggests the following additional questions:

D. "What is the level of engagement in 'quality issues' of deans or departmental leaders?"

E. "To what degree is the unit's committee structure organised and actively functioning to address quality issues?"

For support units, this criterion implies the following additional questions:

F. "What is the level of engagement of unit leaders with quality issues?"

G. "Does the unit's organisation reflect quality goals?"

2. Information and Analysis (6 percent weighting)

This criterion addresses the adequacy of the organisation's data and information resources, and how they are organised to support and address quality improvement.

For the institution as a whole, this second criterion suggests the following review questions:

A. "Does the institution's database contain appropriate data on educational inputs, processes, and results?"

B.   "Are these data organised in such a manner that they are easily retrievable and are analyses regularly conducted that link these data together in appropriate ways to reveal how basic processes are working and how they might be improved?"

C.   "Is the resulting information regularly used in supporting key decisions affecting quality?"

For academic units, this criterion poses the following additional questions:

D.   "What additional data and information is collected at the departmental or divisional level in order to help support quality improvement?"

E.   "How is this information specifically used in academic planning, evaluation, or decision-making?"

For support units, this criterion suggests the following additional question:

F.   "What kinds of data and information are collected by the unit to monitor and improve work processes?"

3. Strategic Quality Planning (9 percent weighting)

This criterion is focused on the organisation's planning processes for achieving quality as a whole, and specifically on how effectively it determines specific short-term and long-term quality priorities.

For the institution as a whole, this criterion suggests the following questions:

A.   "What evidence is there that cognisance is taken of quality issues during planning processes currently and in determining future strategies?"

B.   "Are benchmarks for quality clearly established in the form of internal performance indicators or appropriate comparisons with peer institutions?"

For academic units, this criterion implies the following additional questions:

C.   "What particular priorities for improvement are identified and acted upon by the department or division?"

D.   "What additional benchmark indicators or peer comparisons are present and used in programme planning?"

For non-academic support units, this criterion suggests the following additional questions:

E.   "Are quality standards for the unit's products or services clearly articulated and are unit personnel aware of what they are?"

F.   "Are particular priorities in place for improving the quality of the unit's products or services?"

4.   Human Resource Development and Management (15 percent weighting)

This criterion is focused on the manner in which the institution develops and realises the full potential of its human resources at all levels.

For the institution as a whole, this criterion implies the following questions:

A.   "Is the development of human resources a visible and prominent component of the institution's culture?"

B.   "What specific training and development programmes are available to staff at all levels, are these accessible, and how heavily are they used?"

C.   "Are individuals at all levels and functions at the institution actively involved in efforts to identify, monitor and improve quality performance?"

D.   "Are explicit processes in place to publicly recognise the performance of people who contribute to the improvement of quality?"

E.   "What kinds of information-gathering does the institution engage in to help determine staff well-being, morale, and overall institutional climate?"

For academic units, this criterion suggests the following additional questions:

F.   "What kinds of professional or instructional development opportunities are currently in place for teaching staff and how are they used?"

G.   "How does the department or unit evaluate and recognise individual contributions of the teaching staff towards improving academic quality?"

For non-academic support units, this criterion implies the following additional questions:

H.   "What kinds of staff development opportunities are currently in place and how are they used?"

I.   "How does the unit evaluate and recognise the contributions of specific work teams and individuals to improving the quality of its products or services?"

5.   Management of Process Quality (15 percent weighting)

This criterion is focused on the actual processes used by the organisation to determine and monitor the quality of its products

and services, and particularly on how these are integrated into an organised process of continuous quality improvement.

For the institution as a whole, this criterion suggests the following questions:

A. "How and against what standards are new programmes identified as priorities for development?"

B. "What processes exist to determine the degree to which programmes are delivered as planned?"

C. "What processes exist to monitor and improve the operation of key instructional or service processes?"

D. "What processes exist to assess outcomes?"

E. "What specific mechanisms exist to translate information on key processes and outcomes into suggestions for quality improvement?"

F. "To what extent are the institution's efforts to improve quality having an effect on its key 'suppliers' in the region?"

For academic units, this criterion suggests the following additional questions:

G. "What specific mechanisms exist and are used to determine how the content and delivery of instruction corresponds to 'best practice' in the discipline or profession?"

H. "How do the departmental processes used to make the employment of teaching staff, promotion and confirmation of appointment (tenure) decisions encourage a focus on improving quality?"

I. "How are specific suggestions for instructional or academic improvement facilitated at the unit level?"

For non-academic and support units this criterion implies the following questions:

J. "What specific mechanisms exist to determine the degree to which unit policies, working procedures, and practices correspond to recognised 'best practice' in similar units or industries elsewhere?"

K. "How are specific suggestions for improvement facilitated at the unit level?"

6. Quality and Operational Results (15 percent weighting)

This criterion examines current trends in the assessed quality of the organisation's actual products or services, using indicators already established by the organisation itself, criteria established by its customers, and "standard" performance indicators (if any) for determining the quality of particular products.

For the institution as a whole, this criterion suggests the following questions:

A. "What have been the results obtained over time on key quality and service indicators established by the institution?"

B. "How do these results compare with those of other institutions identified as peers?"

Note that for both academic and non-academic units, indicators under this criterion will be coincident with the effectiveness indicators established by the units themselves. For academic units, it is assumed that these will be broadly consistent with the principles applicable to indicators in most higher education institutions. For non-academic support units, it is assumed that they will be consistent with local quality indicators established through TQM or a similar process.

7. Customer Focus and Satisfaction (30 percent weighting)

This criterion focuses on the degree to which the organisation knows its "customers" (beneficiaries), and how customers actually evaluate their satisfaction with the products and services provided.

For the institution as a whole, this criterion suggests the following questions:

A. "What mechanisms are currently in place to determine the needs of the institution's primary constituencies?"

B. "How does the institution as a whole manifest a 'customer-centred' philosophy, and are specific policies and procedures in place for appropriately managing contacts and relationships between the institution and its customers?"

C. "What specific promises does the institution make to its potential customers and what specific mechanisms are in place to ensure that these promises are remembered and followed through?"

D. "How are specific incidents of customer complaint handled, resolved, and how does the institution use them to help make quality improvements?"

E. "What specific data-gathering and analysis mechanisms are in place to determine overall levels of customer satisfaction with higher education institution's programmes and services?'

F. "What do these data actually show about current levels of customer satisfaction?"

G. "How is customer information from all of the above sources actually used to inform quality improvements?"

For academic units, this criterion suggests the following additional questions:

H. "What mechanisms does the unit employ to keep in contact with its graduates and to solicit suggestions for improvement?"

I. "What mechanisms does the unit employ to determine the needs of major 'consumers' of its graduates, and their satisfaction with the knowledge and skills of recent graduates?"

For non-academic and support units, this criterion suggests the following additional questions:

J. "How does the unit specifically gather feedback about its operations from its 'customers' both inside and outside the higher education institution?"

APPENDIX 8

The Higher Education Quality Council (HEQC) has produced a handbook, Guidelines on Quality Assurance 1994, to assist institutions in their quest to maintain and enhance the quality of educational provision for students.

The guidelines include a checklist for quality assurance systems. The checklist can be used in a variety of ways, for example, as a staff development tool or to review all or part of a quality assurance system.

CHECKLIST FOR QUALITY ASSURANCE SYSTEMS 1994
(A Briefing from the Higher Education Quality Council)

Establishing a framework for quality

1. An effective quality assurance and control system is characterised by agreement throughout an institution on purposes and methods and includes a feedback loop to inform and improve the quality of educational provision.

2. An effective quality assurance and control system is underpinned by wide participation, effective channels of communication, the collection of acceptable evidence, the acceptance of responsibility by staff and students, and an institutional commitment to staff development and training.

Reviewing quality assurance systems

3. Institutions will wish to ensure that they review the operation and effectiveness of their quality assurance and control procedures and that the means adopted reflect the particular approach to quality of each institution.

Admissions policies

4. Institutions will wish to address the following issues in their admissions procedures:

    4.1 the provision for equality of opportunity for all applicants;
    4.2 the reasonable expectation that anyone admitted to a programme of study will be able to fulfil the objectives of the programme and achieve the standard required;
    4.3 the provision of evidence by applicants of relevant personal, professional and educational experiences; and
    4.4 whether it might reasonably be expected that a student's proposed programme of work can be completed in the designated timescale and whether proper supervision can be provided and maintained.

Admission requirements

5. Institutions will wish to provide clear and accurate information on all the available admission routes and on any associated requirements for entry to programmes of study.

Information for prospective students

6.   Institutions will wish to provide a range of information that meets the needs of prospective students and they will wish to have procedures to ensure that the information provided is useful, accurate and realistic.

7.   The marketing strategy of an institution of higher education needs to be appropriate to its mission and directed towards its potential clients.

Pre-entry guidance

8.   Institutions will wish to ensure that appropriate structures and provision operate to offer pre-entry guidance and support for prospective students.

The selection process

9.   In the selection process, an institution will wish to:

> 9.1 make the details of its selection process clear to applicants;
>
> 9.2 ensure that staff responsible for admissions are aware of entry policy and criteria;
>
> 9.3 ensure that admissions staff are conversant with the programme syllabus and available options;
>
> 9.4 provide guidance to admissions staff on which students should be interviewed;
>
> 9.5 ensure that the selection procedure used operates fairly for all types of applicants, regardless of their background;
>
> 9.6 ensure that staff are suitably trained to select all types of applicants and to make fair and sound judgements having regard to the admission criteria; and
>
> 9.7 ensure that satisfactory procedures are established for selecting applicants and that procedures are consonant with institutional policy.

Facilitating student entry

10.   Institutions will wish to ensure that they operate quality control mechanisms to monitor their admission and selection policies and procedures and the accuracy of their promotional material. There should be a feedback loop to review existing practice.

Quality assurance and the diversity of higher education

11.   An institution will wish to ensure that all approaches to teaching/learning are scrutinised appropriately through its quality assurance and control systems in order to ensure the comparability of standards and the quality of the student experience.

12. An institution will wish to ensure that it has appropriate procedures to assure efficiently the quality of learning within individual modules and also to assure the coherence and progression of learning within individual programmes.

External programme approval

13. Institutions will wish to offer guidance and support to staff regarding the external accreditation available for programmes, the advantages of securing such accreditation, and the procedures and criteria to obtain accreditation.

Internal programme approval

14. When approving new academic programmes or modular frameworks, or revising existing programmes, institutions will wish to have quality assurance systems that reflect the structure of academic provision and maintain the quality of programmes and the standards of awards.

15. Institutions will wish to devise appropriate structures and procedures for the quality assurance of credit from prior learning, work-based and other experiential learning, together with mechanisms for assuring coherence within individual awards.

16. Institutions will wish to state the nature of the information which should be included in new programme proposals and how such information is to be used by those charged with responsibility for developing and approving programmes.

17. In formal procedures to scrutinise programme proposals, institutions will wish to include:

17.1 details on who will review the proposal, with external representation as appropriate;
17.2 a framework for considering the programme proposal to include a mechanism to determine the academic credibility and resource implications of the proposal;
17.3 arrangements, where appropriate, for external professional body interest to be included; and
17.4 details of the relationship and requirements of the Senate or Academic Board in the approval process.

Programme information for students

18. Institutions will wish to consider producing information for students on their chosen programme of study.

Teaching and learning

19. Institutions will wish to consider how different teaching strategies bring about their intended student learning objectives and enable students to take maximum responsibility for their own learning.

Evaluation of programmes of study

20. An institution will wish to encourage the adoption of a variety of ways to ensure that programmes of study are running as planned. These might include *ad hoc* day-to-day checks on details, annual monitoring and formal review processes. In the evaluation of programmes of study, the following points need to be taken into account:

    20.1 the organisation and location of the programme (eg modular programme, work-based/franchised programme);
    20.2 the frequency of evaluations and who conducts them;
    20.3 the relationship to external (eg professional bodies) review procedures;
    20.4 a mechanism to review or monitor programmes (using the information in the listing above);
    20.5 what happens as a result of the evaluation (action taken following preparation of monitoring reports or full programme reviews); and
    20.6 a mechanism for final endorsement of the review (eg the role of the Senate or Academic Board).

21. Institutions will wish to have in place clear mechanisms for deciding upon and effecting the major modification or cessation of a programme, which include safeguarding the interests of the students already in or about to join the programme.

Evaluation of teaching and learning

22. Institutions will wish to consider how best to review the effectiveness of teaching and student learning, and where appropriate, to develop further approaches to evaluation.

Staff appointment

23. Institutions will wish to ensure that their appointment procedures take into account the competence and aptitude of staff with regard to the full requirements of the position.

Staff development and training

24. Institutions will wish to promote systems and procedures for quality enhancement to encourage and sustain a culture in which all students and staff contribute to a process of continuing improvement.

Staff appraisal

25. Institutions will wish to have an appraisal system in place for all staff. An appraisal system needs to:

    25.1 be explicit regarding its role in relation to staff development and career progression;
    25.2 be confidential and supportive;
    25.3 specify the procedures, materials and information that will be used in the appraisal;
    25.4 specify all the possible outcomes of the appraisal process;

25.5 identify who will conduct the appraisal;

25.6 provide appropriate training for appraisers and appraisees; and

25.7 recognise the contribution of teaching for academic staff in the appraisal.

Quality of collaborative arrangements

26. When entering into an academic collaborative arrangement, institutions will wish to produce a formal, written statement that sets out the responsibilities and duties of each of the participating institutions in respect of the maintenance of standards and the protection of the student experience.

Postgraduate research students

27. Institutions of higher education will wish to have guidelines on postgraduate research students that are known to students and supervisors. These guidelines will normally include information on:

27.1 procedures for the appointment of one or more supervisor(s) who are suitably qualified for the proposed subject;

27.2 specification of roles and responsibilities of the supervisor(s) and the student, especially with regard to guidance, extent of contact and progress;

27.3 guidance on the resources and facilities available to postgraduate research students (eg use of photocopiers, computing equipment, common room);

27.4 guidance to supervisors and students on reporting arrangements and requirements;

27.5 procedures and requirements for conversion from master's degree to doctorate;

27.6 procedures for the change of a supervisor;

27.7 grievance and appeals procedures;

27.8 details of training available for supervisors; and

27.9 mechanisms for monitoring and ensuring that the various faculty and departmental arrangements for postgraduate research students are in accordance with policy.

28. Institutions of higher education will wish to provide training for postgraduate research students appropriate to their needs.

Student support services

29. Institutions will wish to offer a range of student support services appropriate to the needs of students, and to establish quality assurance and control systems to ensure the suitability and effectiveness of these services.

Student grievance

30. Institutions will wish to operate widely known and understood policies and procedures to deal with student complaints.

Student progress

31. Institutions will wish to have procedures in place to ensure that students receive regular, frequent and prompt feedback on their progress and performance in relation to their chosen programme of study.

Student assessment

32. In assessing students, institutions will wish to ensure that they have taken into account issues relating to programmes of study and to the needs of students, and to operate appropriate procedures for the conduct of assessments.

33. Institutions will wish to ensure that postgraduate research students are informed of examination procedures, including the nomination of examiners, the examination process and the possible outcomes.

Appeals

34. Institutions will wish to have clear, formal and well publicised procedures on appeals for all students, including those who study 'off-site' or are on 'collaborative' programmes.

External examiners

35. Institutions will wish to ensure that they operate an effective system for external examiners and pay particular attention to the selection and appointment of external examiners and the nomination of moderators; contractual arrangements; the role of external examiners; the form of the external examiner reports; and the arrangements for review and implementation of the external examiner recommendations (HEQC, 1994: Checklist, 4pp).

APPENDIX 9
POSTS ADVERTISED BETWEEN 1992 AND 1994 IN THE TIMES HIGHER EDUCATION SUPPLEMENT:

Date	Institution	Post Advertised	Nature of Work
1992-09-25	New College, Northampton	Director of Academic Quality	Managing academic standards - internal quality audit - oversee course validation
1993-01-29	Higher Education Funding Council England	Director of Quality Assessment	Promote the assessment and enhancement of quality in HE
1993-06-04	New Zealand Universities Academic Audit Unit	Director of Academic Audit Unit	Monitoring and promotion of academic standards - procedures for maintaining quality - identify good practice in regard to maintenance and enhancement of academic standards
1993-09-17	University College, Scarborough	Assistant Dean (Quality Assurance)	Developing a College-wide Quality Assurance Programme-staff development and its link to quality implementation
1993-10-15	Middlesex University	Assistant Quality Assurance Manager	Development and implementation of policy on quality improvement - quality audit assessment in HE
1994-02-04	HEQC	Director of Quality Enhancement	Lead and manage the Quality Enhancement Group - support institutions enhancing the quality of their teaching and learning

Date	Institution	Pos Advertised	Nature of Work
1994-02-04	Bournemouth University	Accreditation Officer (Audit and Course Information)	Co-ordination of the Course Quality Audit function - work with staff and students to enhance quality
1994-03-11	University of Central England, Birmingham	Research Officer (Assessing Quality in HE)	Exploration of the theory and practice of Quality Assessment and Measurement in the Centre for Research into Quality
1994-04-15	Middlesex University	Professor/Head of Academic Development and Quality Assurance	Lead and manage Academic Development and Quality Assurance Service
1994-04-22	The London Institute	Deputy Director of Quality Control	Development of the quality assurance system - quality audit and assessment

APPENDIX 10

QUALITY ASSURANCE CHECKPOINTS FOR THE UNIVERSITY

The following list of Checkpoints is referred to by Voehl (1993) in a book entitled <u>Total Quality in Higher Education</u> by R.G. Lewis and D.H. Smith (1994:310).

1. Motivating for quality consciousness
   - Are the philosophy and general policies of the university and of top management easy to understand and have they been thoroughly implemented.
   - Have employees been made aware of the damages the university suffers due to poorly prepared students and customer complaints (loss of customer confidence, loss of image, etc)?
   - Have concrete examples been provided to the staff to show the importance of quality as a shortcut to lower costs, higher student confidence, and a great sense of achievement?
   - Have staff and students been helped to understand the role that quality plays in their work?

2. Objectives and planning
   - Are classroom quality targets clear and well understood?
   - Has the QA improvement theme been clearly set forth?
   - Has each individual and student been given instructions for his or her part in the plan for carrying out the improvement themes that will achieve these targets?
   - Are the plans related to these targets and improvement themes clear?

3. Education
   - Are chances for achieving the goals and plans being improved through education, exchanges with other universities, and participation in events outside the organisation?
   - Have the functions that make the offerings useful to the market and the current extent of the product's use in the market been explained?
   - If a problem arises, does someone take charge, give proper instructions for solving the problem, and direct the improvement activities?

4. Practical work and its improvement
   - Are tasks related to the quality characteristics carried out thoroughly?
   - Has a handbook been prepared to summarise work procedures in order to teach employees how to do their jobs?
   - Have workers been taught how to use computers, instruments, and tools and to make revisions and adjustments to the curriculum?

- Are the work methods reviewed to determine that they are performed properly?
- Are workers encouraged to upgrade their technical knowledge and skills? How much time is spent each year per employee?

5. Problem solving and team activities
   - When problems or accidents occur, do workers receive guidance in solving the problem?
   - When on-the-spot emergency firefighting must be done, is the root cause of the problem identified in order to make sure it does not recur?
   - Is the project team directed to work together to solve a problem?
   - Are effective and rational problem-solving methods used, such as the seven quality control tools?
   - If improvements and reforms are needed in organisation, systems, or standards to prevent a problem from recurring, do the people directly involved participate in taking the necessary actions?
   - Is careful consideration given to whether the university work-place culture is the problem, and are appropriate measures taken to change the situation?

(Lewis & Smith, 1994:310-311)

APPENDIX 11

TOTAL QUALITY CULTURE ASSESSMENT FORM

Please rate your organisation of the following criteria (1 = definitely applies, 2 = somewhat applies, 3 = neutral, 4 = does not apply, 5 = definitely does not apply.)

A. Environment

1.	Constancy of purpose clearly exists	1 2 3 4 5
2.	High degree of democratisation achieved	1 2 3 4 5
3.	Accepts responsibility to all stakeholders	1 2 3 4 5
4.	Organisation demonstrates long-term focus	1 2 3 4 5
5.	Quality performance measures in place	1 2 3 4 5
6.	Human rights and diversity accepted	1 2 3 4 5
7.	Workers enabled to do their jobs	1 2 3 4 5
8.	Workers empowered	1 2 3 4 5
9.	Workers supported by management	1 2 3 4 5
10.	Quality profiles established	1 2 3 4 5
11.	A shared common vision exists	1 2 3 4 5

Environmental Total _____

B. Products and Services

12.	Products and services based on customer need	1 2 3 4 5
13.	Customers "sell" other customers	1 2 3 4 5
14.	Satisfy customer needs and expectations	1 2 3 4 5
15.	Reflect added value	1 2 3 4 5
16.	Customer input to product and service development	1 2 3 4 5
17.	partnership with customers and suppliers	1 2 3 4 5
18.	Measure customer satisfaction proactively	1 2 3 4 5

Products and Services Total _____

C. Methods

19.	Study/learn from successes and failures	1 2 3 4 5
20.	Establish operational definitions of quality for key processes	1 2 3 4 5
21.	Obtain constant feedback	1 2 3 4 5
22.	Hear voices of employees	1 2 3 4 5
23.	Study/learn from others	1 2 3 4 5
24.	Work effectively with suppliers	1 2 3 4 5
25.	Manage processes and stabilize through Statistical Process Control	1 2 3 4 5
26.	Communicate using data	1 2 3 4 5
27.	Hear voice of customer	1 2 3 4 5
28.	Hear voice of process	1 2 3 4 5
29.	Follow PDCA discipline (Plan, Do, Check, Act)	1 2 3 4 5
30.	Use consensus	1 2 3 4 5

Methods Total _____

D. People

31.	Feel "I belong"	1 2 3 4 5
32.	Recognise contribution	1 2 3 4 5
33.	Train in job	1 2 3 4 5
34.	Feel pride in work	1 2 3 4 5
35.	Learn continuously	1 2 3 4 5
36.	Committed to team	1 2 3 4 5
37.	Share customer vision	1 2 3 4 5
38.	"Connected" to customer	1 2 3 4 5
39.	Trained in process improvement methods	1 2 3 4 5
40.	Use people's ideas	1 2 3 4 5
41.	Included in strategic planning	1 2 3 4 5
42.	Work to potential	1 2 3 4 5
People total		_____

E. Organisational Structure

43.	Managers literally lead	1 2 3 4 5
44.	Co-operate at all levels	1 2 3 4 5
45.	Inverted through customer/supplier relationships	1 2 3 4 5
46.	Pay any bonus based on overall effectiveness	1 2 3 4 5
47.	Operate all systems/processes using total quality	1 2 3 4 5
48.	Align process management with strategic business	1 2 3 4 5
49.	Function defines form	1 2 3 4 5
50.	Understand roles/responsibilities	1 2 3 4 5
51.	Respond like small organisations	1 2 3 4 5
52.	Members share in ownership of structure and processes	1 2 3 4 5 1 2 3 4 5
53.	Encourage creativity and innovation	1 2 3 4 5
54.	Operate effectively cross-functionally	1 2 3 4 5
55.	Delegate responsibility and authority	
Organisational Structure Total		_____

F. Total Quality Mindset

56.	Practice win-win strategies	1 2 3 4 5
57.	Improved quality increases	1 2 3 4 5
58.	Recognise that variation is normal	1 2 3 4 5
59.	All members learn continuously	1 2 3 4 5
60.	Teamwork is encouraged	1 2 3 4 5
61.	Added value to customer	1 2 3 4 5
62.	All employees use data	1 2 3 4 5
63.	Employ the PDCA cycle	1 2 3 4 5
64.	Measure and track results	1 2 3 4 5
65.	Recognise that all outcomes result from a process	1 2 3 4 5
66.	Recognise that all quality means continuous improvement	1 2 3 4 5
67.	Recognise that all workers want to do their best	1 2 3 4 5
68.	Recognise that managers control (are responsible for) the work process	1 2 3 4 5
69.	Practice systems thinking	1 2 3 4 5
70.	Move from enumerative to analytical approach	1 2 3 4 5
71.	Customer needs define quality	1 2 3 4 5
Total Quality Mindset		_____

(Lewis & Smith, 1994:146-148)

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