MSM | MAASTRICHT SCHOOL OF MANAGEMENT

NACTE and the Quality in Technical Education

Handbook for monitoring the Quality in the Technical Institutions in Tanzania

Content

Introduction

Why this handbook

In the framework of the project *"Improving the Labor market Responsiveness of Technical Education in Tanzania"* NACTE invited an expert in Quality Assurance to analyse the Quality Assurance processes and procedures used by NACTE and to analyse NACTE's readiness to monitor the quality systems at the various Technical Institutions. Based on the outcome of the analysis the expert would make recommendations about the development of a (possible) generic quality assurance framework for all Technical Institutions, linked to the quality system of NACTE and linked to the National Qualification Framework.

NACTE has been installed in 1997 by the National Council for Technical Education Act to oversee and coordinate the provision of technical education and training in Tanzania. In the period 1997 – 2014, NACTE had developed the processes and procedures to meet the requirements as set in the Act and to comply with the given task. It has undertaken a lot of activities and published many documents. At this moment, the majority of the Technical Institutions are registered (472 institutions).

The phase 1997-2014 is characterized by *controlling and guidance* of the Technical Institutions by NACTE as the main actor. It was the time, where there was a need to control both the existing and new coming institutions. However, after 17 years of activities the question is if NACTE still is on the right track. What was good and necessary in 1997 might not longer be necessary. Regional and international developments too have their influence on functioning of NACTE.
It was a good decision to organise a review of the processes, procedures and documents of NACTE. It is the right time to see what changes may be needed, what improvements can be made. Based on document analysis and interviews with the departments, subject boards, ministry and institutions (CBE) the consultant had formulated his conclusions and recommendations. It became clear that NACTE is standing on a crossroad and has to make decisions for the future. What is the direction for NACTE to go?

In the Act from 1997, the following tasks are given to NACTE:

1. to register and accredit technical institutions capable of delivering courses;
2. to register technical teachers and other qualified technicians;
3. to assist technical institutions in the transmission of knowledge, principles and training in the field of technical education and training for the benefit of the people of Tanzania;
4. to assist technical institutions in the overall development of the quality of education they provide and to promote and to maintain approved academic standards;
5. to establish and make awards in technical education which are consistent in standard and comparable to related awards in Tanzania and internationally;
6. to ensure that the quality of education required for the awards is met and maintained throughout the duration of the delivery of the course;
7. to assist technical institutions in their development by introducing and developing policies and procedures that will allow institutions attain greater autonomy in the delivery of courses;
8. to advise the government on the planning and development of technical education including matters relating to manpower planning, staffing, budgetary and capital provision, the efficiency of the sector and the development of the curriculum;
9. to review technical education and training policies from time to time in the light of changing technologies and economic development;
10. to accept in partial fulfillment of a course of the study leading to the Council's awards such periods of learning and training as it may recognize as being equivalent in outcome to that award;
11. to co-operate with other bodies and organizations for such purposes as the Council may from time to time deem to be appropriate to achieve its objectives;
12. to advise the Minister on the grant of autonomy to any accredited technical college
13. to appoint moderators for all validated courses leading to the council's award;
14. to appoint the members of its Constituent Boards and Commit
15. to receive income and undertake expenditure as maybe necessary or appropriate for the discharge of its functions;
16. to introduce any measures and procedures which may be necessary for the furtherance of the objectives of the Council.

Looking to the Act the following clusters of tasks can be made:

- Formulating standards for the Awards (the National technical Awards)
- Registration and accreditation of TI's
- Support and guidance of the TI's
- Advising the Minister
- Registration of Technical Teachers

May be the most important task in the beginning was the formulation of the National Technical Awards (NTA). The Council has defined and established a range of National Technical Awards (NTA) to be conferred on graduates of technical education and training upon successful completion of their respective studies in various technical fields. The NTA's are competence/outcomes based defined according to specific levels of achievement and designed to testify that the holder of the award possesses the requisite knowledge necessary to apply competently the knowledge and skills described in the relevant occupational sector.

After the document analysis and the interviews with stakeholders, the following was concluded:

- *The assessment system is seen as too bureaucratic and too complicated.*
  Looking at the processes and procedures for registration and accreditation, one can only conclude that the process is bureaucratic and complicated. The system is not based on real self-assessment. The role of the expert team is more "box ticking" instead of acting as accountant, consultant and adviser. The whole system should be more simplified.
- *The role of NACTE and the institutions are not balanced.*
  The role NACTE is playing in the process of registration and assessment is not in balance with the role of the institutions. The impression exist that the TI's are working for NACTE and NACTE is prescribing what the TI's has to do. There is not always a good balance between the responsibilities of the TI's and the responsibilities of NACTE.
- *The system is not user-friendly.*
  The whole procedure is not direct user-friendly, nor for NACTE and its experts nor for the institutions.
- *The burden for the institution and NACTE is too high*
  Although more than 450 institutions are registered, still many others are to come. Furthermore, many programs have to be validated. Looking at what NACTE is requiring from the institutions, the only conclusion is that for the institutions the burden is too high. In addition, the burden for NACTE becomes in this way too high as well. The question is: is it possible to develop an assessment system "light" that is efficient and effective, but saving time and money?
- *The documents have to be revised.*
  Analysing the documents; it became clear that some of the documents were out-dated and should be rewritten. It also became clear that the documents were sometimes difficult to understand. Also the assessment tools needed to be reviewed to give the assessment items reasonable weights.
- *The tasks for registration/accreditation and support/guiding are not clearly distinct and separated.*
  Between support activities and assessment there must be a clear separation, a Chinese wall should be build. It is not acceptable to have support and assessment in the same hand. When one has supported an institution to develop a curriculum, one should not be involved in the assessment of the program.

For streamlining of the processes and procedures for Quality Assurance and Quality control, the decision was made to develop a handbook both for the institutions and for NACTE. The handbook for the Technical Institutions is an instrument to develop a quality assurance framework inside the institution. It will contribute to harmonization of the quality assurance at institutional level and it will bring the QA in the institutions in line with regional and international developments. Furthermore, the handbook is a powerful instrument to support the change in Quality Assurance from control orientation towards an improvement orientation. The handbook is a toolkit to prepare the Technical Institutions for external assessment.

Parallel to the development of the handbook for the Technical Institutions, a handbook for NACTE is developed. This handbook replaces[1] the current approach of NACTE in the field of accreditation, validation and approval. The handbook will bring NACTE in line with the regional and international developments. Just as for the Technical institutions, the handbook will support the change from a

[1] The handbook is at this moment not yet officially endorsed. The handbook and the proposed new approach will have a try-out in the coming pilot project. This draft of the handbook will be used by the institutions in the pilot project. This means that in the text *replace(s)* has to be read as *Intended to replace*

bureaucratic, control approach to an improvement oriented approach. And last but not least, the handbook will lighten the burden of NACTE.

The handbooks are based on the IUCEA handbook A *Roadmap to quality*[2]. This handbook is adapted to the Tanzanian context of Technical Education. The academic standards, as formulated by NACTE and the specific topics for the Technical Institutions are included in the handbook.

The handbook of the Technical Institutions and the handbook of NACTE are each other's mirror image. The content of the one is mirrored in the content of the other. The handbook of the institutions is the basis for the internal Quality Assurance inside the institution, but is also the instrument to prepare for the external assessment by NACTE. The handbook for NACTE is the basis for the institutional accreditation, program accreditation and the quality audit.

How to use it

The Handbook "NACTE and *Quality in Technical Education"* is divided in 7 chapters.

- *Chapter 1* describes the task, given to NACTE established by Act of Parliament Cap 129 It offers also the rationale for the way of monitoring the quality in the Technical Education.
- *Chapter* 2 shows the relation between internal quality assurance (responsibility of the Technical Institutions) and external assessment (responsibility of NACTE). It shows the way NACTE is monitoring Technical Education in Tanzania
- *Chapter* 3 raises the question *what is quality,* and provide some theory and background. This chapter is important for the staff and coming staff to learn more about Quality and Quality Assurance. It is also a good base for training of external experts.
- *Chapter 4* contains the process of registration both of new institutions and new programs
- *Chapter 5* contains the guidelines for conducting a Quality Audit.
- *Chapter 6* contains the guidelines for conducting an Institutional Accreditation.
- *Chapter 7* contains the guidelines for conducting a Program Accreditation

The handbook "NACTE and the *Quality in Technical Education"* aims to:

- stimulate an effective and efficient Quality monitoring system for NACTE
- streamline the QA-assurance processes and procedures of NACTE
- make the system more user-friendly
- develop an adequate External Quality Assessment system that fits international developments.

[2] *Inter-university Council for East Africa, A ROADMAP TO QUALITY, Handbook for Quality Assurance in Higher Education (volume 1,2,3 and 4)*

1. NACTE and its functions

1.1. Introduction

The National Council for Technical Education (NACTE) was established by Act of Parliament Cap 129 to oversee and coordinate the provision of technical education and training in all non - university institutions in Tanzania. Technical education and training in this context is defined as: "*education and training undertaken by students to equip them to play roles requiring higher levels of skills, knowledge, understanding and attitudes/ethics and in which they take responsibility for their areas of specialization."* This scope of NACTE covers all tertiary education and training institutions other than universities and their affiliated colleges, delivering courses at technician, semi professional and professional levels leading to awards of certificates, diplomas degrees and other related awards. NACTE has under its ambit 472 institutions and has audited and registered all of them.

The mandate of the National Council for Technical Education as derived from Cap 129 is threefold and may be summarized as follows:

- *Regulatory Function:* to establish the regulatory framework for technical education and training, leading to quality assured qualifications;
- *Quality Assurance Function:* to assist technical institutions to improve and maintain the quality of the education they provide and to ensure that their programs meet labor market demand, by guiding and monitoring their adherence to the regulatory framework; and
- *Advisory Function:* to advise both Government and technical institutions on the strategic development of technical education and training.

These three aspects are interrelated and together make up the core functions of NACTE. The key issues that NACTE is required to address include:

- To register and accredit both public and private technical education and training institutions capable of delivering courses;
- To register technical teachers (teaching staff in technical institutions);
- Ensure that the quality of education required for the NACTE awards is met and maintained throughout the duration of the delivery of the course (monitoring and evaluation);
- To ensure the relevance of technical education and training to labor market demand;
- To institute systems of quality control and quality assurance in technical education and training; and
- To maintain databases on technical education and training, which will serve as a source of information needed by the Government and other stakeholders for strategic development of technical education and training in Tanzania.

From the above functions it is clear that NACTE's core business is to establish, sustain, regulate and uphold standards in technical education in Tanzania. As a regulator, NACTE has established a framework that sets the quality standards for technical education and training. All developed procedures leading to registration and accreditation of institutions as well as the adoption of a Technical Education Qualifications Framework are intended to sustain and uphold standards in technical education in Tanzania. NACTE has formulated its vision as "*To establish a well organized efficient and effective system of national qualifications and excellence in the delivery of technical education and training, and the resulting output*
And formulated its mission as "*To establish and operationalize policies, regulations and procedures for setting and maintaining standards and quality of technical education and training and advising the Government on the strategic development of the sector."* The mission statement is translated into the following three basic objectives:

- To establish and operationalize policies, regulations and procedures for setting and maintaining standards and quality of technical education and training;
- To assist technical institutions to achieve and maintain high quality of education and training; and
- To advise the Government on the strategic development of technical education and training.

The guiding theme for the National Council for Technical Education is "*Striving for world-class excellence in technical education and training*". NACTE's employees are guided by the following core values:

- Upholding professional standards and moral ethics;
- Ensuring stakeholders participation in NACTE operations;
- Commitment and self motivation towards achieving NACTE's goals,
- Objectivity, transparency and public accountability;
- Social responsibility, and
- Judicious application of ICT.

NACTE is cognizant of and fully accepts its responsibility of contributing significantly towards the realization of the Tanzania vision 2025 which envisages Tanzania to be a nation with high quality livelihood; a nation which produces the quantity and quality of well educated people sufficiently equipped with requisite knowledge and skills to solve the society's problems, meet the challenges of development and attain a strong and competitive economy. These aspirations of the country can be realized, to a greater extent, with the availability of a technical education and training system, which the Council is endeavouring to establish, capable of producing a critical mass of high quality technicians and professionals required to effectively respond to and manage development challenges of our nation at all levels. Since the start of the activities, NACTE has done what was necessary to assure the quality of technical education in Tanzania. The most important task in the first years was the formulation of the National Technical Awards (NTA) (see section 1.2). In the period 1997 – 2014, NACTE has developed the processes and procedures to meet the requirements as set in the Act and to comply with the given task. It has undertaken a lot of activities and published many documents. At this moment, the majority of the TI's are recognized (472 TI's). Controlling and guidance of the TI's with NACTE as the main actor characterize the phase 1997-2014. It was the time, where there was a need to control both the existing and new coming TI's. However, after 17 years of activities NACTE is confronted with the following questions:

- How can we simplify the system?
- How can we make the system user-friendlier?
- How can we ease the burden for NACTE and for the institutions?
- How to establish a better balance in responsibilities between NACTE and the institutions?
- How to make the system sustainable for the future?

In this handbook, NACTE shows the way forward and the approaches it will adopt in the near future.

1.2. NACTE and the National Qualification framework

To create a critical mass of intermediate and full professional human resources that can meet the economic and social needs of the country NACTE has defined and established a range and levels of awards in technical education (emphasis on theory) and training (emphasis on skills and technology).

The NACTE NTA system has seven levels linked to a three level National Vocational Training Awards (NVTA) system under the Vocational Education and Training Authority (VETA). This provides a ten level framework of Technical and Vocational Education and Training (TVET) qualifications. Each qualification on the NTA system has a broad competence level descriptor as shown in table 1:

Table 1: TVET Qualifications Framework

S/N	Qualification Level	Qualification Award	Competence Level Descriptors
1	NVA Level 1	Transcript	The holder of the qualification will be able to apply "basic vocational knowledge and skills"
2	NVA Level 2	Basic Vocational Certificate	The holder of the qualification will be able to apply "intermediate vocational knowledge and skills"
3	NVA Level 3	Vocational Certificate	The holder of the qualification will be able to apply "full / higher vocational knowledge and skills"
4	NTA Level 4	Basic Technician Certificate	The holder of the qualification will be able to apply skills and knowledge at routine level
5	NTA Level 5	Technician Certificate	The holder of the qualification will be able to apply skills and knowledge in a range of activities, some of which are non-routine and be able to assume operational responsibilities.
6	NTA Level 6	Ordinary Diploma	The holder of the qualification will be able to apply skills and knowledge in a broad range of work activities, most of which are non-routine.
7	NTA Level 7	Higher Diploma	The holder of the qualification will be able to apply knowledge, skills and understanding in a broad range of complex technical activities, a high degree of personal responsibility and some responsibility for work of others

8	NTA Level 8	Bachelors Degree	The holder of the qualification will be able to apply knowledge, skills and understanding in a wide and unpredictable variety of contexts with substantial personal responsibility, responsibility for the work of others and responsibility for the allocation of resources, policy, planning, execution and evaluation.
9	NTA Level 9	Masters Degree	The holder of the qualification will be able to display mastery of a complex and specialised area of knowledge and skills, employing knowledge and understanding to conduct research or advanced technical or professional activity, able to work autonomously and in complex and unpredictable situations
10	NTA Level 10	Doctor of Philosophy	The holder of the qualification will be able to apply knowledge and understanding and do advanced research resulting into significant and original contributions to a specialised field, demonstrate a command of methodological issues and engaging in critical dialogue with peers, able to work autonomously and in complex and unpredictable situations.

1.3 NACTE and the Job profiles

So far, NACTE has published so called *qualification standards*. About 36 *qualification standards* are mentioned on the website of NACTE. The qualification standards provided the following information:

- The occupational profile
- Name of the qualification
- Purpose of the qualification
- Competence level descriptors
- Total credits
- Principal learning outcomes
- Assessment criteria
- Essential knowledge
- Essential skills
- Essential tools.

For an example of a *Qualification standard* see the example of the Basic Technician Certificate in Accountancy in appendix 4.

Instead of using *Qualification standards*, which might lead to some misunderstanding, the word to be used will be *Job profile.* This is strongly connected to the idea of Competence-based education and training.

Competence-based education and training is an approach to instruction based on the philosophy that *"given appropriate instruction, time and conditions, almost all learners can and will learn most of what they are supposed to learn (includes what they are taught and what they achieve from self learning.)"* In Competence based learning the emphasis is on outcomes of learning based on performance standards, which have to meet the *skills required by an employee at the workplace*. An outcome is a result of the learning process. It is anything that one can demonstrate after undergoing a learning process. For instance one can demonstrate the ability/competence to repair a car or construct a brick house. One can show also that he/she understands how to solve problems, plan, communicate well or collect and sort out information. Measurable learning outcomes, including their assessment criteria are the key features of Competence-based education and training. Therefor, a job profile, containing all-important elements is a prerequisite for the design of a curriculum.

A *job profile* provides the institution with a description of the profession and contains the expectation of the employers concerning the graduate. A Job profile contains

- The name of the qualification
- Description of the profession
- The competence level descriptor NQF,
- The Expected Learning Outcomes
- The Assessment Criteria.
- Total number of credits

An example of a job profile is given in table 2

Table 2: example of a job profile

Job Profile	**Accountancy**
Name of the Qualification	Basic Technician Certificate in Accountancy NTA level 4
Description of the profession	The employee will - record accounting data, - process receipts/payments using book-keeping and ICT skills, - handle documents and provide customer care on day to day basis.
Competence level descriptor	The holder of the qualification will be able to apply skills and knowledge at routine level
Number of credits	120
Expected Learning Outcomes	1. Apply bookkeeping and arithmetic skills to record accounting data and process receipts and payments 2. Apply communication and customer care skills to handle clients 3. Operate ICT instruments to capture data and communicate information 4. Apply record keeping skills to handle documents
Assessment Criteria	ELO 1 • Arithmetic principles are applied in handling accounting data; • Bookkeeping principles are applied in recording accounting data; and • Relevant Regulations and procedures are used in processing receipts and payments. ELO 2 • Communication skills are applied in carrying out daily operations; • English language skills are applied in daily operations; and • Customer care techniques are used in handling internal and external customers. ELO 3 • ICT knowledge and skills are used in operating computers and other office equipment; • Word processor, spread sheets and accounting packages are applied to capture data; and • ICT tools are applied in communicating information. ELO 4 • Information handling techniques are demonstrated in carrying out daily operations; • Record keeping skills and procedures are applied to classify, store and retrieve documents; • Record keeping procedures are used to maintain records movement register; and • Safety and security procedures are observed in handling documents.

1.3.1 The content of a job profile

1. Name of the Qualification
The job profile starts with the name of the qualification, for example Basic Technician Certificate in Accountancy, NTA level 4

2. The description of the profession:
The description at least contains the following:

- A statement on typical context where the graduate with the particular qualification will work, for example, in farm estates, hospital laboratories, manufacturing concerns, retail outlets, and so on;
- A statement on the level at which graduates is expected to function, by indicating the level of degree of independence in the workplace, as per NTA Level Descriptors.

3. The competence level descriptor NQF

The job description reflects the clusters of attributes as indicated in the specification of NTA Competence Level Descriptors, which include:

- Knowledge and Understanding;
- Practical Skills;
- Communication Skills; and
- Wider abilities for executing workplace tasks / functions effectively.

4. The number of credits

The job profile contains the number of credits. At least 120 for each level and 240 for NTA level 7.

5. Expected Learning Outcomes

In the Job profile the expected learning outcomes are formulated. Expected Learning Outcomes are statements of the knowledge, skills and attitude that a learner is able to demonstrate on completion of a learning process. Learning Outcomes can be separated in three domains

- Cognitive learning (Knowledge)
- Psychomotor learning (Skills)
- Affective learning (Attitude),

In the taxonomy of Bloom, the teaching and learning hierarchy is important for the correct and consistent building of the knowledge side of the Learning Outcomes. The cognitive domain comprises six levels starting with the easiest level *remembering* and ending in the top with *creating as* the most complex level of the taxonomy (see figure 1). Formulating Expected Learning Outcomes one have to formulate actions, starting at the lowest level of the taxonomy. See, for examples, figure 2.

Figure 1: Revised Taxonomy of Bloom (Anderson and Krathwohl 2001)[3]

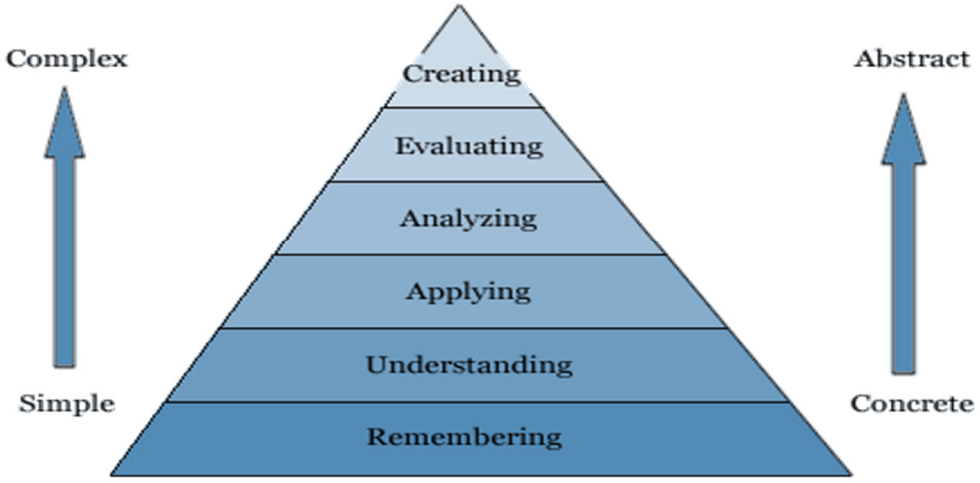
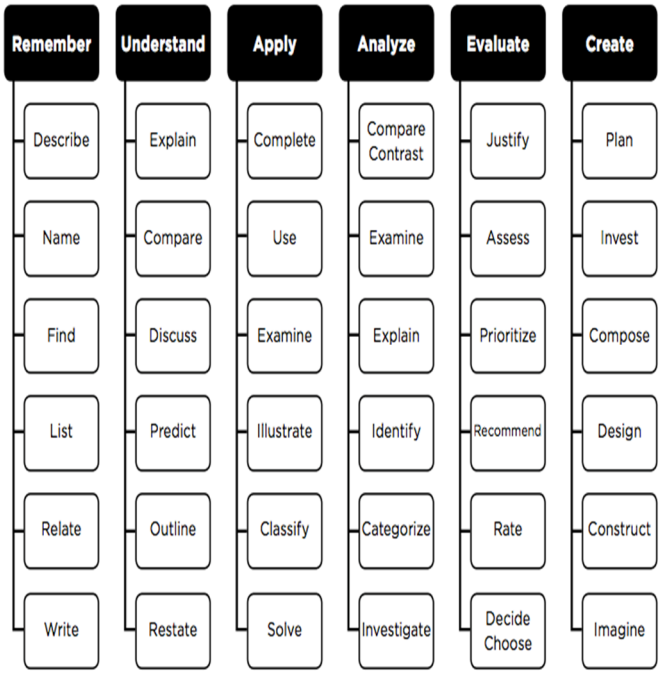


Figure 2: Action words for the cognitive domain (Anderson and Krathwohl 2001)

[3] *Krathwohl, D.R., Bloom, B.S. and Masia, B.B. Taxonomy of Educational Objectives: Handbook II. The Affective Domain.N.Y., David McKay Company, Inc. 1964. In: Van der Klip, Cees: Profession based education and training. ,A Teachers guide, Draft 2015*

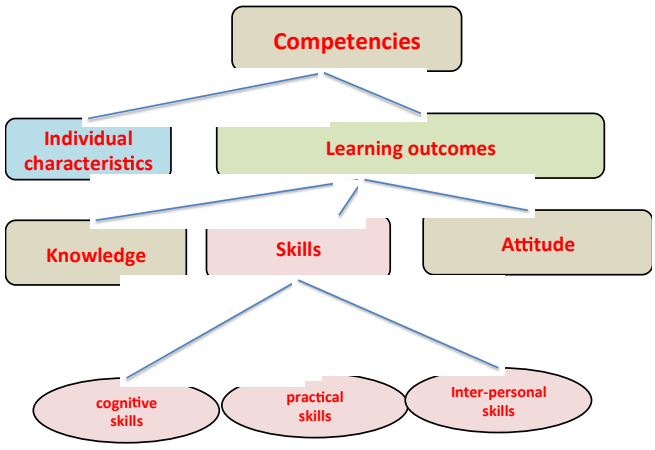


Learning outcomes can be divided into:

- *Knowledge*
  Knowledge means the outcome of the assimilation of information through learning. Knowledge is the body of facts, principles, theories and practices that is related to a field of work or study. Knowledge is described as theoretical and/or factual;
- *Skills*
  Skills mean the ability to apply knowledge and use know-how to complete tasks and solve problems. Skills are categorized as:
  - *Cognitive skills* (involving the use of logical, intuitive and creative thinking);
  - *practical skills* (involving manual dexterity and the use of methods, materials, tools and instruments);
  - *interpersonal skills* (the way of communication, cooperation, etc).
- *Attitude*
  Attitude means a settled way of thinking or feeling about something. Four major components of attitude are: affective (emotions or feelings), Cognitive (belief or opinions held consciously), Conative (inclination for action), Evaluative (positive or negative response to stimuli).

Figure 3 shows the relationships between knowledge, skills and attitude.

Figure 3: Categorisation of Learning Outcomes



In formulating learning outcomes, a distinction has to be made between *generic* learning outcomes and *subject specific* learning outcomes. *Generic learning outcomes* are those outcomes expected from all academic trained graduates. Examples of generic learning outcomes are: problem solving, communication skills, and ability to cooperate. A key characteristic of a *generic learning outcome* is that you have to practice it in a specific field. *Subject specific* learning outcomes are those that are typical to that discipline.

6. Assessment Criteria
Assessment criteria are statements that clearly indicate what learners are expected to do in order to demonstrate that they have successfully realized an Expected Learning Outcome. They are required mainly to assist the institutions in developing corresponding assessment.

1.3.2 The role of NACTE concerning the Job Profiles
It is an important task of NACTE to keep a database of the job profiles. At this moment 36 Job profiles are published on the website. In cooperation with the employers and the institutions, NACTE will develop missing job profiles and keep the already formulated job profiles up to date. NACTE will use the document *NACTE, Procedures for Occupational Analysis towards Setting of Qualification Standards, June 2010* for the formulation of job profiles. The basic steps will be:

- Organising a meeting between employers, professional bodies and TI's
- Discussing the profession(s) where the future graduates will be employed
- Developing descriptions of the professions
- Describing the requirements for the professions
- Translating the requirements into expected learning outcomes
- Formulating the assessment criteria
- Deciding upon the link with the NQF

The formulated job profiles are a starting point for the institution in curriculum design, might be of new programs, might be for the revision of an old program.

1.4 NACTE and the current process of quality monitoring
Section 5 (1) (a) of the National Council for Technical Education Act, 1997 empowers the Council to register and accredit technical institutions capable of delivering courses. Registration and accreditation are mandatory [Registration Regulations (Government Notice No. 279 published on 26/10/2001) and Accreditation Regulations (Government Notice No. 41 published on 18/01/2002)].

1.4.1 Registration
Registration is a process in which NACTE satisfies itself that an institution has been legally established and is viable for offering programs sustainably. An institution applying for registration has to meet the following requirements[4]:

- Provide evidence that the institution meets the *legal requirements* of establishing. This means it posses a document showing the establishment and ownership of the institution such as: Constitution; Charter; Articles of Association; and Business license (where applicable).
- The applicant institution should also provide evidence of the extent to which the institution is *viable* to deliver training programs and is able to provide the intended training.

1.4.2 Accreditation
Accreditation is an approval of the Council granted to an institution on account of having programmes and quality assurance system that ensures the provision of set qualifications and educational standards. Accreditation is a continuous process, the heart of which lies in periodic self-appraisal by each institution. Accreditation is renewable after every five (5) years. Institutions are required to process for accreditation within six months after being granted Full Registration and must be accredited within five years, otherwise their registration will be withdrawn by the Council.

The main purposes of accreditation:

- To assure the educational community, the general public and other stakeholders that an institution:
    - Has clearly defined objectives appropriate to technical education and training;
    - Has established conditions under which training achievements can reasonably be

[4] *NACTE, Procedures for registering and accrediting Technical Institutions in Tanzania ,*

measured;
    - Is organized, staffed, well resourced and sustainable and that it can be expected to continue to be so; and
    - Meets educational and training standards demanded by the relevant occupational sector.
- To encourage institutional development and improvement through self study and periodic evaluation by qualified peer professionals.
- To develop and use NACTE standards to assess and enhance educational quality and institutional performance.
- To promote interchange of ideas among public and private institutions through various forums such as annual meetings, publications and other forms of information dissemination.
- To protect institutions against encroachments which might jeopardize their educational effectiveness or academic freedom

Accreditation Requirement is the compliance with the accreditation standards[5]
1. Institutional Vision and Mission
2. Governance and Administration
3. Institutional Integrity
4. Institutional Effectiveness
5. Educational Programmes
6. Student Support and Development
7. Information and Learning Resources
8. Teaching and Supporting Staff
9. Physical Resources
10. Financial Resources

Furthermore, a well functioning Quality Assurance system is seen as a condition sine qua non.

1.4.3 Validation & approval

One of the key aspirations of the National Council for Technical Education (NACTE) was to establish in the country a well-organized, efficient and effective framework of national qualifications that ensure the quality and excellence of the delivery of technical education and training as well as its resulting outputs. In this respect, a qualification is considered to be a planned combination of learning outcomes which has a defined purpose or purposes, and which is intended to provide qualifying students with applied competence and a basis for further learning. It is the formal recognition of the achievement of the required number and range of credits and such other requirements at specific levels of the National Technical Awards (NTA) that have been established by the Council for the purpose.

The underlying philosophy behind curricula of technical institutions under NACTE is hinged on the requirement for all curricula to address the aspects of teaching and learning with adequate reflection of the needs and interests of the employers, the profession, the learners themselves, the offering technical institution, the Government, the wider society, and the economy. As such, NACTE should validate/approve all curricula developed by/for individual technical institutions to confirm that they meet the prescribed standards and hence satisfy the requirements indicated above. That is one of the major activities of NACTE towards effective regulation of technical education and training in the country as mandated by the establishing Act [1]. In the document *Procedures for Curriculum Approval and Validation*[6], NACTE describes two ways of approval and validation:
- Approval and validation by the institution
- Approval and validation by NACTE.

In both cases, the question is whether the curriculum adequately addresses the needs of employers, profession and society. Furthermore whether the curriculum reflects the mission and vision of the institution.

5 NACTE, *Academic Quality Standards , June 2010*
6 NACTE, *Procedures for Curriculum Approval and Validation, August 2004*

1.4.3 NACTE and the quality audit

NACTE published three documents on Quality Assurance[7]. In these documents, NACTE emphasises the importance of a well functioning Internal Quality Assurance system and stresses the necessity of a Quality Management plan. Internal Quality Assurance is seen as a *conditio sine qua non* for accreditation. The institution is required also to ensure that it has in place a Quality Control (QC) and Quality Assurance (QA) mechanism. This entails having a sound Quality Control (QC) and Quality Assurance (QA) policy, Quality Management Plan and QC / QA committee for coordinating the QC and QA activities of the institution. This is a basic requirement for ensuring that the institution offers training leading to quality assured qualifications, a necessary condition for national and international recognition.

1.5. Quality monitoring in a new setting

Quality monitoring in the new setting aims at making the system user-friendlier and less bureaucratic. It will be less control oriented and more improvement oriented. Also the role of the TI's in the monitoring process will be a more active one. This will be done by putting more emphasis on the self-assessment by the institution. In table 3 the old and the new system are compared:

Table 3: Old and new system of quality monitoring

current		**New**	
Procedure	***Based upon***	***Procedure***	***Based upon***
Registration:	Procedures for Registering and Accreditation Technical Institutions in Tanzania	**Registration**	Information and documents provided by TI
Accreditation (of the TI) • **Full** • **Provisional**	• Procedures for Registering and Accreditation Technical Institutions in Tanzania • Guidelines for Preparation of Quality Management Plan for Institutions Accredited by NACTE • Self Evaluation Study Guide • NACTE Academic Quality Standards • Performance Indicators for Assessment of Institutions	**Institutional Accreditation**	• Self assessment according guidelines in chapter 6 of the handbook for TI's • External assessment according chapter 6 of the NACTE handbook
Departmental recognition **Program approval** **Program validation**	Procedures for Curriculum Development and Review Procedures for Curriculum Approval and Validation	**Program accreditation**	• Self assessment according guidelines in chapter 7 of the handbook • External assessment according chapter 7 of the NACTE handbook
Quality assurance system	Is included in Institutional Accreditation. IQA system based on: • *Guidelines for Preparation of Quality Management Plan for Institutions Accredited by NACTE, June 2004* • *Framework for Institutional Quality Assurance, August 2004* • *Guidelines for Establishing Institutional Policies and Procedures on Quality Control and Quality Assurance, June 2010*	**Quality Audit**	• Self assessment according guidelines in chapter 5 of the handbook • Quality audit according chapter 5 of the NACTE handbook.

[7] *a) Guidelines for Preparation of Quality Management Plan for Institutions Accredited by NACTE, June 2004*
b)Framework for Institutional Quality Assurance, August 2004
c) Guidelines for Establishing Institutional Policies and Procedures on Quality Control and Quality Assurance, June 2010

In the following chapters, the elements of the quality monitoring system are discussed:

1. Registration (Licensing) (chapter 4)
2. Institutional accreditation (chapter 5)
3. Program accreditation (chapter 6)
4. Quality Audit (chapter 7)

2. IQA and EQA: two sides of the same coin.

Quality Assurance in Higher Education, including the Technical institutions has two elements:
- Internal quality assurance
- External monitoring and assessment.

In the case of Tanzania it concerns, on one side the responsibility of the Technical Institutions to assure the quality of the institution, the quality of the program with the final aim the quality of the graduate. On the other side the responsibility of the outside regulatory body NACTE to set standards for the quality and to check if the institutions meet the requirements set by NACTE in consultation with the key stakeholders.

2.1 Responsibilities of the institution

It is the responsibility of the institution to develop processes and procedures in such a way that it provides confidences to the stakeholders that it delivers competent graduates in an efficient and effective way. To achieve this, the institution needs to have:
- Appointed a Quality-officer and set up a quality center;
- Implemented a well functioning Internal Quality assurance system;
- A self-assessment of its IQA-system, every 5 years;
- A self-assessment of the institution, every 5 years;
- Validation of its programs on a regular base by means of self assessment of the programs .

The above-mentioned activities will show the strengths and the weakness of the institution and its programmes. The outcomes of the self-assessment will lead to a quality policy plan to tackle the shortcomings. The institution will report yearly to NACTE (via the QA-officer) about the state of the art of the Quality plan.

2.1.1. The QA-unit and the QA –officer

According to NACTE, an institution must have a Quality Assurance Committee to ensure quality policies and objectives are set, implemented and evaluated. NACTE describes a recommended Quality Management Structure for the institution.[8]

Organisational structure

Of course, there is no one system that fits all. A large institution has other needs than a small one. But in general we can look at the following structure for Quality Assurance at the TI (figure 4):

1. At central level, the institution has installed or will install Quality Assurance Council. The president of the institution will chair the Council. Members of the QA-council are the deans of the departments. The role of the QA-committee is a decision making one. In the QA-council, all decisions concerning quality of the institutions are made.
2. At central level, the institution must have a Quality Assurance centre or Quality Assurance unit, headed by a QA-officer. The QA-centre or unit is established for the purpose of leading, supporting and coordinating quality assurance processes in all units of the institution. It should be acknowledged that administrative procedures vary from one Technical Education institution to another.

A high-ranking faculty member should run the QA-unit. He/she should have the expertise, knowledge and experience of quality assurance in Tertiary Education, and the ability to take over the reins of effective leadership. The manager of the quality assurance centre should also be administratively accountable to the President of the institution.

As for the staff required by the QA- centre/unit, this depends on the size of the institution and multiplicity of its facilities, and the extent of centralization of the responsibilities of the centre or their distribution to all departments and units of the institution. In any case, the procedures used in the quality assurance centres focus on the small size of the centre and its effectiveness, so the staff usually consist of two to five members, including the director of the centre, the administrative support team, secretary, and one or two specialists to whom certain responsibilities are assigned.

The QA-unit must act independently and autonomous, but is accountable to the QA-council. The role of the QA-unit is facilitating Quality Assurance activity in the institution at all levels.

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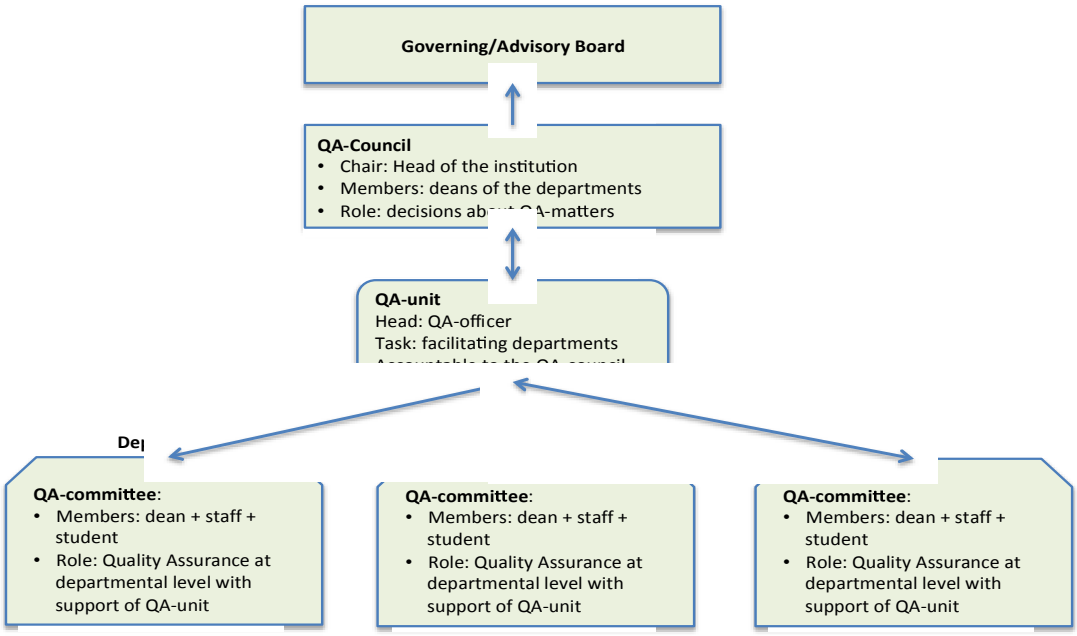
8 *NACTE, Guidelines for preparation of Quality Management Plan for institutions accredited by NACTE, August 2004.*

At faculty/departmental level, the institution should set up Quality Assurance committee. The dean of the department chairs the QA-committee. The role of the QA-committee is to take care of quality assurance at departmental level with support of the central QA-unit. Activities will be: self-assessment of the programs, preparation for accreditation, curriculum design, quality assurance of the programs, staff, student support, facilities etc.

Figure 4: QA at the institution



Task of the QA-officer and the QA-unit

A central QA-unit has been installed with the aim to enhance the quality of the institution. Although the responsibility for quality belongs to the academic community as a whole (managements, staff and students), the QA-unit plays a facilitating role. The tasks of a QA-unit concern the following fields:

- *Promoting quality awareness and a quality culture in the university.*
  Not all academics (management and staff) are aware of the need of quality assurance. There is resistance to innovations. The QA-unit has the mission to make clear that an institution will not survive without attention to quality. The QA-officer can use chapter 3 of the handbook of the TI's as basic information for promoting quality awareness.
- *Development of a clear quality policy in the institution.*
  Although there will be some attention to quality (often on individual basis), a structured quality policy is missing in many cases. It is a task of the QA-unit to support management in the development of a quality policy plan, supported by the academic community. A Quality policy and quality strategy covers all activities the institution will use to improve quality, to enhance quality and to assure the quality of all core activities and the context of the core activities.
- *Implementation and maintenance of a robust Internal Quality Assurance system*
  In general, the institution will pay special attention to some topics to provide quality. However, a system with structured and continuous attention to quality assurance is often missing. It is the task of the QA-unit to analyse the current situation and to implement a robust system of IQA. In chapter 5 of the handbook for the TI's, the QA-officer will find an instrument to promote the implementation.
- *Supporting general management to find out the quality of the institution and institutional management.*
  While NACTE plans Institutional accreditation, it is important for the institution to prepare it self for the accreditation. However, when there is no external assessment, it is important to know the quality

of the institution. Chapter 6 of the handbook for TI's offers the QA-officer the instrument to organise a self-assessment at institutional level.

- *Supporting departments in the self assessment process for discovering the quality of the programs*
  A self-assessment at program level is a powerful instrument to improve the quality and to assure the quality. It is an important task of a QA-unit to support the departments in the process of the self-assessment of the programs. Chapter 7 of the handbook for TI's offers the instrument for the support.
- *Organizing student evaluations*
  An important instrument for getting feedback on the quality of a program is student evaluation. Because student-evaluation should be compulsory through the whole institution, the QA-unit will play a role in the development of the student questionnaire. In general, there will be one basic questionnaire for all courses, although individual teachers may add additional questions. It will be a task of the QA-unit to process the questionnaires and provide the department with feedback
- *Organising tracer studies*
  In the framework of an Internal Quality Assurance system, it is important to know where our graduates find a job. Therefore, tracer studies are necessary. It will be a task of the QA-unit to support faculties and/or departments in designing tracer studies.
- *Staff developments activities*
  There is a strong relation between quality assurance and staff development. Carrying out self-assessments at program level will shows weaknesses. Therefore it is important that the QA-unit develop staff development activities. The QA-unit may offer workshops/training in:
    - Formulation of learning outcomes
    - Curriculum design
    - Writing examination questions
    - Working with small groups
    - Lecturing in big groups
    - Etc.
- *Support faculties/departments in designing new curricula.*
  Of course, a QA-unit will never be responsible for a new curriculum. However, the QA-unit may share its experiences with the department. It will be important to ask the QA-unit for advise on the new curriculum.

NACTE plays an important role in quality assurance of the Technical Education by monitor the quality of the TI's (registration, accreditation and audit and by supporting the TI's in the development of a quality culture. Because NACTE embraces the principle of autonomy of the institutions and the principle that quality assurance is in the first instance the responsibility of the institution, it will be clear that NACTE only can be successful with a well functioning QA-unit. The QA-unit plays a double role:

- Facilitating QA activities in the institution and to contribute to quality improvement and quality enhancement
- To act as contact address for NACTE when NACTE organises an external assessment, might be of the institution as a whole, might be at program level.

The QA-unit will provide NACTE information on the state-of-the-art of quality assurance in the institution. The QA-officer is expected to report yearly about its activities. This can be done through the Chairman of the Quality council, because the QA-director has to report to the Quality council too.

2.1.2. The instrument of self assessment

A powerful instrument for assuring the quality is the instrument of self-assessment. It is a good way to discover the quality. A critical self-assessment is important because we are sometimes too eager to accept that everything is good: *"I have been teaching this way for years and my course has never caused problems. My students have always been content and employers have never complained about the graduates."* This may be true, in general. In an educational organisation, which is a professional organisation, the players always aim to deliver quality. The demand for self-evaluation is not inspired by lack of quality. It means that the quality has to be examined in a structured way, within a well-defined framework. Normally, a self-assessment serves as a preparation for a site visit by external experts organised by NACTE. The self-assessment report (SAR) provides the external experts with basic information. However, a self-assessment has specific value for the institution itself too. It provides an opportunity for discovering quality.

In the self assessment, the following questions are important:

- Why do we do what we are doing? Do we indeed do the right things?

- Do we do the right things in the right way?
- Do we have a thorough command of the process to actually realize what we want?
- Do we really achieve what we want to?

An effective self-assessment is time-consuming. It requires effort by staff and students. Often, it will require an investment of time that has to be taken away from other activities. However, the returns and the profits of a good self-assessment are high. The self-assessment will provide information not known to everyone; Information often exists, but only a small group of people knows it. Sometimes facts will have another dimension when they are connected to one another. Normally, a self assessment will be conducted once in the 5 years, assuming that the self assessment will lead to a quality action plan that every year will be checked on progress.

The self- assessment involves co-workers and students in the discussion on the quality of education: the discussion will be raised beyond the level of the individual who is active in the curriculum committee or administration; and the views on quality of individual co-workers and students will be examined together in order to establish a policy for the institution. It shows on which considerations choices need to be made (choices are often made implicitly or postponed) and the information gathered is brought to bear on earlier formulated principles. A decision is reached as to whether a policy should remain unchanged or an explicit choice made.

In organising an effective self-assessment, one has to take into account some basic principles:

- Primarily, a self-assessment should never be felt as threatening. A self-assessment should not be used to assess an individual, should never be used for punishment or reward and should never be used to blame someone.
- A self assessment aims at improvement and enhancement of the quality.
- It is necessary to create a broad basis for the self-assessment and to sensitize staff and students. The whole organisation has to prepare itself for it.
- Looking at quality is more than testing the performance. It also means organisational development and shaping the institution. Everybody has to be responsible and involved for real self-assessment.
- The management of the institution must fully support the self-assessment. Relevant information is needed for an effective policy and good management. The self-assessment serves to acquire structural insight in performance of the university;
- Conducting a critical self-evaluation demands a good organisation[9]. Primarily someone has to coordinate the self-assessment process. It would be good to designate someone specifically with the self-evaluation project.

The coordinator has to meet some requirements:

- In order to obtain the required information, it is important that the coordinator has good entry rapport at all levels of the institution. Therefore, it is very important that the coordinator has good contacts within the institution, with the central management as well as with the faculties and the staff members.
- The coordinator must have the authority to make appointments with management and staff about conducting the self-assessment and about the information that is needed.
- It is desirable to constitute a substantive team of staff in-charge of the self-assessment.
- It is important that the team is structured in such a way that the involvement of all sections is assured. The working group is in charge of the self-assessment, gathering data, analysing materials and drawing conclusions.
- It is assumed that self-assessment is an analysis supported by the whole faculty/department. Therefore, it is important that everyone should be at least acquainted with the contents of the self-assessment report and should recognise it as a document from his or her own institution. The working group may organise a workshop or seminar to discuss the draft SAR.
- Not everyone has to agree with all the points in the self-assessment report. There may be disagreement as to what are seen as weaknesses and strengths and what is to be considered as the causes of the weaknesses. Should there be very big differences of opinion between certain groups or bodies, then the SAR should report on it.

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[9] *You also can find additional interesting suggestions about the organization of the self-assessment in the publication NACTE, Self-evaluation study Guide, June 2010 (page 1-10). Concerning the planning, the content of the SAR and the criteria (standards) to be evaluated see chapter 6 and 7 of this Handbook.*

The institution determines how self-assessment is carried out. However, it is good to use experiences gained elsewhere. On the basis of experiences with self-assessment in other institutions some suggestions may be made that can facilitate the process (the tentative organisation of the process is given in Table 4):

- Self-assessment should never be the work of a single person.
- Make a group responsible for the self-assessment.
- This group should consist of some three to five people, chaired by a coordinator.
  Students should be involved in the self-assessment.
- A clear timetable should be set up, assuming a total amount of time available of about five to six months between the moment of the formal announcement by NACTE and the actual site visit.
- The topics that have to be considered in the self-evaluation should be distributed among the committee members and each member made responsible for collecting information, and for analysing and evaluating the data from the self assessment.
- The draft results should be discussed on the largest scale possible. It is not necessary to have consensus concerning the report; it is, however, necessary for as many people as possible to be aware of its contents.

Table 4: The process of organizing self assessment

Date	Activity
Eight months before the planned end of the self-assessment	• Appoint the leader of the assessment process • Compose the assessment team, including students
The following 6 months	• Divide the cells to be dealt with • Each person responsible for collecting information and data, collects that information • Write draft information of the cells
4 months after the start	• Discussion on the drafts in the group • Second draft
About 5 months after the start	• Discussion of the second draft with all faculty staff and students during an open hearing
6 months after the start	• Edit the comments of the hearing for the final draft • Send the SAR to NACTE
8 months after the start	External assessment

The TI's will conduct the self-assessments against NACTE academic quality standards, using the guidelines in this handbook (chapter 5,6 and 7).

2.2. Responsibilities of NACTE

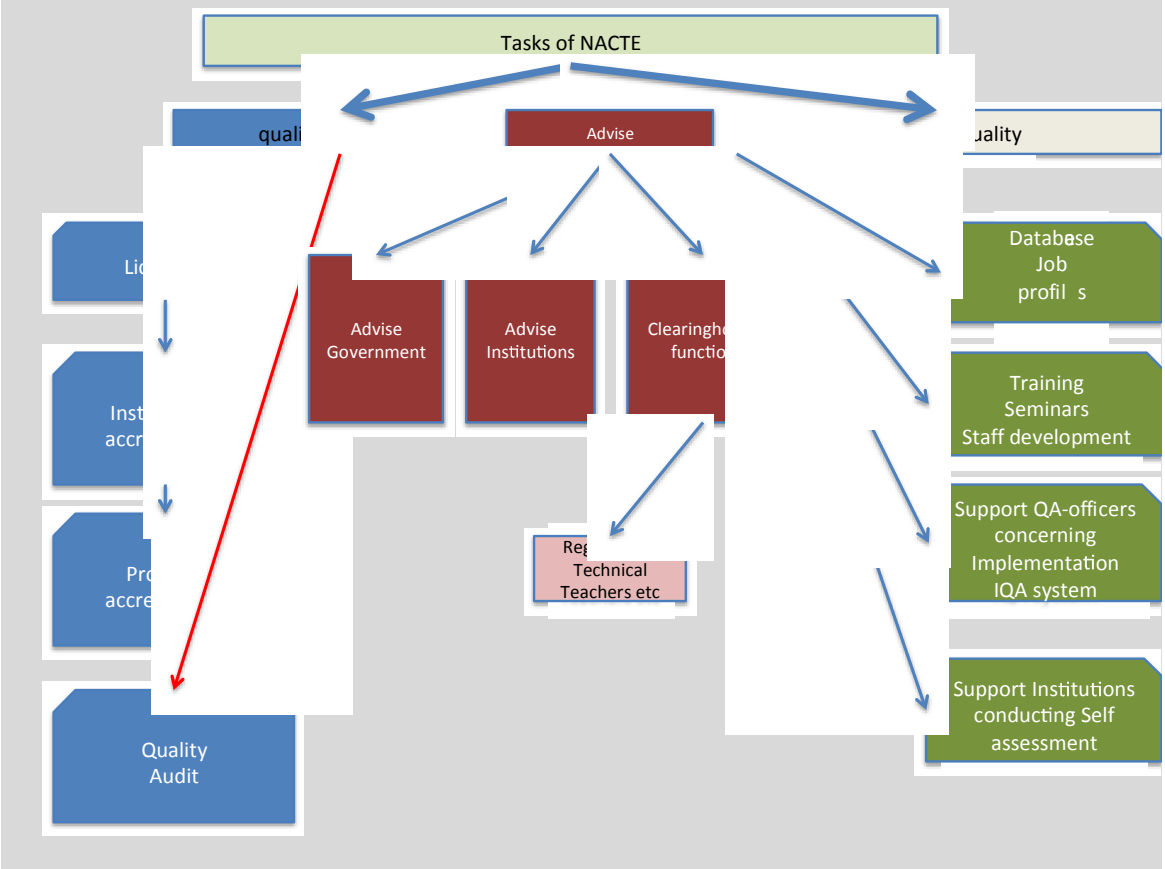
The responsibility of NACTE can be summarized as *monitoring that the graduates from the Technical Institutions fulfill the expectations of the employers and the profession*. By formulating the standards of the awards (NTA), NACTE has set the basic condition for the competent, qualified graduate. By monitoring the quality of the institutions NACTE contribute on its way to the quality assurance of Tanzanian Technical Education. Monitoring of the quality of the institution is necessary, because the internal quality assurance, belonging to the responsibility of the institution, need an external check to provide confidence to the stakeholders in the graduates of the Technical Institutions.

2.2.1 . Support of Quality and Quality Assurance by NACTE

NACTE will support the quality and quality assurance of the TI's in the following way (see figure 5):

- *Checking the quality* by
  - Registration
  - Institutional accreditation
  - Program accreditation
  - Quality audit
- *Supporting quality* by:
  - Keeping up to date the database Job profiles
  - Training seminars and staff development activities (e.g. How to formulate learning outcomes; curriculum design; formulating assessments)
  - Supporting Quality Assurance officers in implementing IQA systems
  - Supporting institutions in conducting self assessments
- *Advisory functions:*
  - Advise the government on planning and development of Technical Education
  - Advise Institutions on new developments
  - Clearinghouse function concerning information about Technical Education

Figure 5: Quality monitoring by NACTE



2.2.2 Quality monitoring by NACTE

NACTE will monitor the quality of the intuition and its programs by organizing external quality assessments. The process of monitoring contains the following sub-processes:

- Registration of a new institution
- Compulsory report of the institution about the IQA-system, based on self assessment by the TI, within 18 months after recognition
- Institutional accreditation within 3 years after recognition
- Program accreditation

While it is the responsibility of the institution to conduct on regular base self-assessments of the IQA-system, the institution and the programs, it is the responsibility of NACTE to organise the external assessments. This might be a Quality Audit, Institutional Accreditation or Program Accreditation.

In all cases, external experts are playing an important role. The role of the experts is not an easy one. The expert team has to combine various functions. The team will:

- Check the outcomes of the self-assessment
- Reflect on the self-assessment
- Be engaged in dialogue and discussion with the institution
- Act as an auditor/inspector.

The expert team is expected to combine two missions:

- The team members should listen to the staff of the institution and act as colleagues, using their expertise and experience to offer advice and recommendations.
- At the same time, the team has to write a report with its independent verdict on the subject of assessment.

In one way the team of experts has to act collegially and in the other way it has to remain independent**.** It will not always be easy to combine the divergent roles.

In chapter 5, the approach of the Quality audit is described. Chapter 6 contains the process of an institutional accreditation, while chapter 6, contains the process of program accreditation. As counts for most accreting agencies in the world, it is impossible to conduct Quality Audits, Institutional Accreditation and Program accreditation at the same time. Just like other agencies, NACTE has to choose where it will put emphasis. The emphasis will be on institutional accreditation. This will always be a site visit to check the self-assessment report (SAR). The assessment of the IQA system will be done by NACTE , based on the compulsory SAR of the institutions. Programme accreditation will have different modalities too (see chapter 7).

When a site visit is planned, NACTE as to appointed a team of external experts. Those teams will differ for the Institutional accreditation, program accreditation and a quality audit. However some aspects are important to take care of:

- *Selection and appointment*

To get a good team, NACTE will invite the institution that will be assessed to give names of experts that the institution views as the *primus inter pares*. The experts to be nominated must be of high esteem. Based on the list, provided by the institution and possible complemented from other sources, NACTE will compose the expert team. The proposed composition will be sent to the institution to be assessed to see if there is any serious objection against anyone of the candidates. If not, NACTE will appoint the members of the expert team.

- *Independence and confidentiality*

It is important that the expert team, and each member individually, act independently and without any conflict of interest. If a member has any connection with the institution to be audited, he or she cannot be appointed. To assure independence and eliminate conflict of interest, all members of the team will sign the *declaration of independence.* The audit members are also bound to confidentiality about everything they will hear or read about the institution under assessment. The Self-Assessment Report (SAR) and all interviews are confidential.

- *Training of the experts team*

Assessing quality is a specific skill. Normally, experts in a team are specialists in institutional management or in a discipline and do not have much experience in evaluation or quality assessment. Therefore, the experts must be trained beforehand. Therefore, NACTE will organise on a regular base, training of the experts. All members should have knowledge of the basic ideas of quality and quality assurance; they all need to be aware of the does and don'ts. The basic elements of the training are:

* What is quality and how can quality be measured?
* How to use the quality model
* How to cope with criteria and standards set by NACTE?
* How to read the self-assessment report
* How to organise the interviews
* How to behave during the assessment
* How to write the external assessment report

- *The secretary*

Because all external assessments should be done in equivalent /similar way, it is important that NACTE provides the secretary of each expert team. In addition to his or her duties as secretary, described below, he or she also acts as project leader during the assessment. The secretary:

* Checks the SAR for completeness and compliance with the requirements made on it;
* Maintains contact with the institution about the planning of the external assessment
* Makes preparations for the team's visit;
* Files the documents referring to the assessment process.

Once the team has been installed, the secretary has the following three-fold task:

- *To monitor the team's working procedure and compliance with the assessment protocol.*
  The secretary is the connecting link between NACTE and the team. His or her primary responsibility is to monitor the assessment process. Is the expert team following the guidelines laid down for it? Is it maintaining its independence? Are agreed procedures followed? *To support the team with specific expertise*

The secretary supports the team in the fulfilment of its duties. As the chairman's right-hand person, he or she plays an active role in drafting the assessment report. Although not formally a member of the team, the secretary does contribute specific skills in the fields of quality assessment and policy development in tertiary education.

- *To archive the audit trail*.
  The secretary is responsible for keeping the documents relating to the assessment at least until the end of the assessment procedure.

3. What is Quality? Some theory and background information

3. 1 What is quality?

The word quality is already used several times without explanation what quality is. However, everybody who thinks about quality and quality assurance is faced with the question: "What is quality?" In the time that the call for quality became louder and louder, many discussions on quality start with a quote from the book Zen and the Art of Motorcycle Maintenance:

> "*Quality...you know what it is, yet you don't know what it is. But that's self-contradictory. But some things are better than others, that is, they have more quality. But when you try to say what the quality is, apart from the things that have it, it all goes poof! There's nothing to talk about. But if you can't say what Quality is, how do we know what it is, or how do you know that it even exists? If no one knows what it is, then for all practical purposes it doesn't exist at all. But for practical purposes it really does exist. What else are the grades based on? Why else would people pay fortunes for some things and throw others in the trash pile? Obviously some things are better than others... but what's the 'betterness'? 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?"* (Pirsig, 1974)[10]

In spite of these reflections by Pirsig, many books and articles have been written trying to discover the nature of quality. But quality is like love. Everybody talks about it and everybody knows what he/she is talking about. Everybody knows and feels when there is love. Everybody recognises it. But when we try to give a definition of it we are left standing empty-handed.

The quote from Pirsig shows how desperately the writer is thinking about quality and reveals the problem that relates to quality: There is no general consensus on the concept of quality. An absolute definition of quality does not exist, because quality is, just like beauty, in the eyes of the beholder. Whoever asks whether something has quality has already a certain concept in mind and certain expectations. When we talk about the quality of a product or the quality of a service, the definition often used is the satisfaction of the client. The client has certain expectations about the product or service and wants “value for money".

While quality, in general, is already a difficult concept in itself, quality in higher education is much more confusing, because it is not always clear what the "product" and who the "client" is. Is the "graduate" the "product" that we offer society and the labour market? Or is the graduate-to-be, the student, our "client" and the program that we offer the "product"? We can say that a Technical Institution has a multiple product system and a multi-client system.
In the discussion on quality in higher education, an article by Green (1994)[11] is often quoted in which he makes a distinction between:

- *Quality as excellence.* In this concept, the emphasis is on high-level standards. Being the best, being excellent. We may say that something has quality and something has more quality. People talking about promoting quality frequently mean promoting *excellence.* However, quality is not the same as being excellent. Of course, everybody likes to do his/her best to deliver quality, but not every institution can be a Yale or MIT. A country with only excellent institutions does not exist. An institution can choose not to aim for excellence, because it likes to educate a broad range of graduates and not only the brightest ones. A typical regional institution with a mission to develop its country will choose differently to an institution like Berkley.
- *Quality as fitness for purpose.* With this concept of quality, the basic question is if the institution is able to achieve its formulated goals. It concerns the quality of the processes. This quality concept is improvement oriented. But, will this quality approach assure achievement of the threshold quality because goals and aims are not the issue? An institution might have set its goals too low, through which it can easily achieve them. This means that we not only have to discuss the fitness *for* purpose, but also the fitness *of* purpose.
- *Quality as a threshold.* In this view, quality is seen as meeting threshold requirements. This quality concept often forms the basis for accreditation decisions. The problem is that it is not always clear what basic quality is. Setting threshold standards might also hinder innovations. Compliance with the threshold standards does not stimulate innovations.

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10 *Pirsig, Zen and the Art of Motorcycle Maintenance, 1974.*

11 *Green, D (1994), What is quality in Higher Education? Concepts, Policy and Practice. In: Green (ed)(1994) What is Quality in Higher Education? London: SRHE/Open University Press*

- *Quality as added value.* This concept emphasises what happens to the students. Education is about doing something *to* the student. Quality means the value added to the student during education and training. It is the method of formulating learning outcomes and realising the outcomes in the graduates. The basic quality question is: "What has he/she learnt?
- *Quality as value for money*. This quality concept has its focus on efficiency. It measures outputs against inputs. It is often a concept supported by governments. The concept is connected with accountability.
- *Satisfaction of the client*. With the rise of the concept of the "student as a consumer", quality is described as: "something has quality when it meets the expectations of the consumer; quality is the satisfaction of the client".

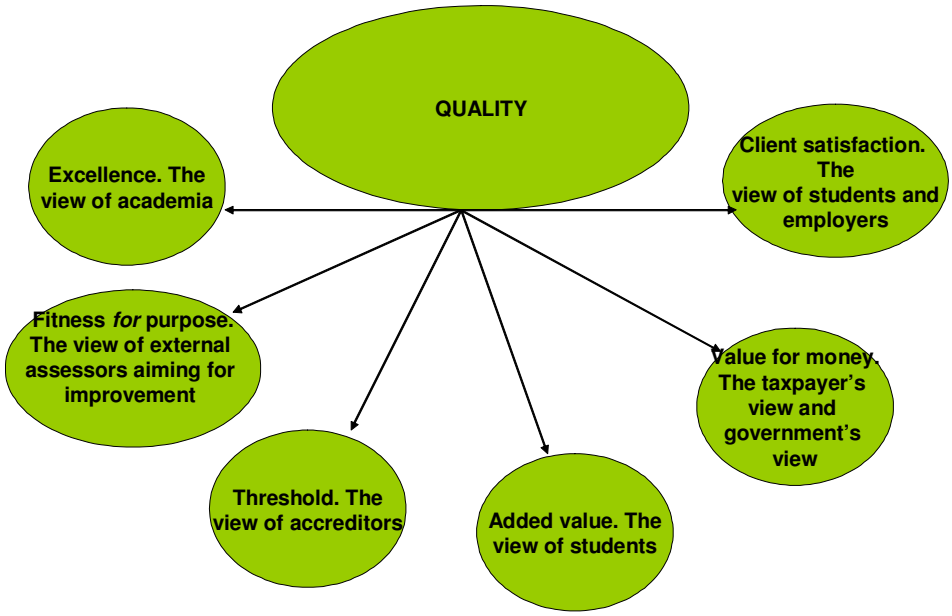


Figure 6: different views on quality

3.2 The stakeholders and quality

Quality assurance in Technical Education is much more complicated than quality assurance in industry, because there are so many players in the field. Technical Education has many stakeholders and each stakeholder has its own ideas. We can distinguish the following stakeholders:

- The government or the state
- The employers
- The academic world
- The students
- Parents
- Society at large

The opinion about quality will differ from stakeholder to stakeholder:

- When the *government* considers quality, it will look first at the pass/fail ratio, the dropouts and enrolment time. Quality in the eyes of governments can be described thus: *"As many students as possible finishing the program within the scheduled time with an international level degree at reduced costs."*
- Employers talking about quality will refer to the knowledge, skills and attitudes obtained during the studies: the "product" that is tested is the graduate.
- Quality of education has a different meaning in the eyes of the students and their parents. For them, quality is connected with the contribution to their individual development and preparation for a position in society. Education must link up with the personal interests of the student. But the educational process also has to be organised in such a way that students can finish their studies in the given time.
- An academician will define quality as *"A good academic training based on good knowledge transfer and a good learning environment and a good relationship between teaching and research."*

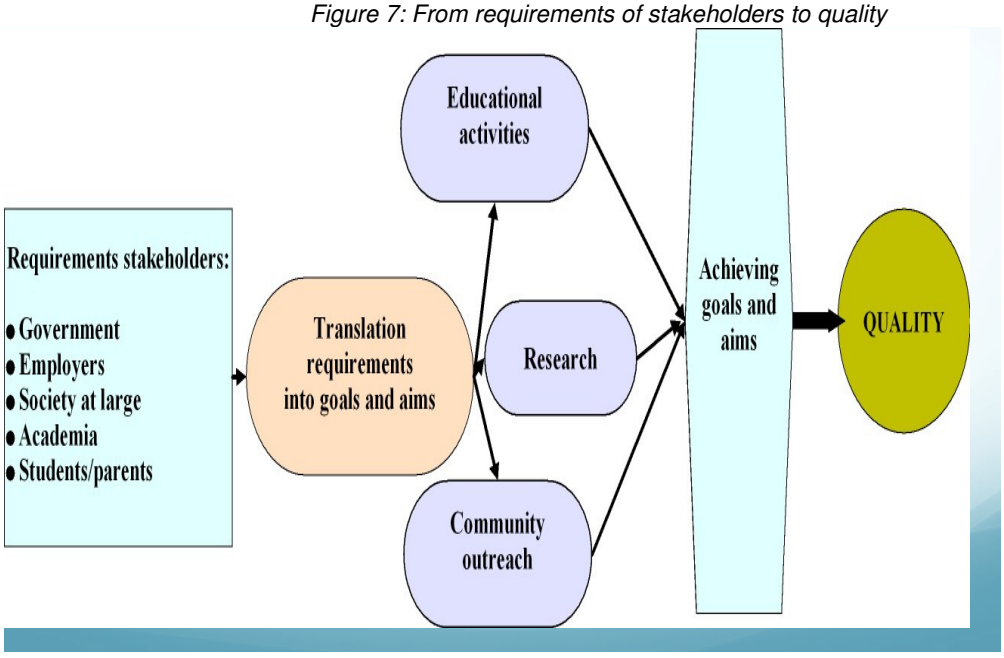
We must conclude that quality is a very complex concept. We cannot speak of *"The Quality";* we have to speak about "qualities". We have to distinguish between quality requirements set by the different stakeholders: by the student, by the academic world, by the labour market (employers), by society, and by the government. Each stakeholder will appreciate different aspects of quality, as can bee seen in Table 5.

Table 5: Stakeholder appreciation of the quality aspects

Stakeholders	Students	Employers	Government	HEI	Staff
Aspect of quality					
Input (for example):					
student intake			*	*	*
selection	*			*	*
budget				*	*
academic staff	*			*	
Process (for example):					
aims/goals	*		(*)	*	*
educational process	*			*	*
educational organisation	*			*	*
Content	*		*	*	
advice	*			*	
Output (for example):					
pass/fail rate	*		*	*	
the graduate	*	*	*	*	*

Quality is not a simple one-dimensional notion. Quality is multi-dimensional. So there is quality of input, process quality and quality of output. All these dimensions have to be taken into account when discussing quality and judging quality. The different views on quality and multi-dimensional notion of quality mean that it is a waste of time to try to define quality precisely. Absolute, objective quality does not exist. However, if we take our quality seriously and if we seriously try to assure our quality, we have to agree on a workable concept of quality. Taking into account that each player has his or her own ideas about quality, we can agree that we should try to find a description of quality that fits most of the ideas and that covers most of the expectations of the stakeholders. This means that quality is not a static concept. Depending on developments, the accent of quality will change (e.g. in Europe the change from process orientation towards a more output oriented quality perception).

Figure 7: From requirements of stakeholders to quality



With so many stakeholders and players in the field, we may say *"Quality is a matter of satisfying the stakeholders in an adequate way".* In this process, each stakeholder needs to formulate, as clearly as possible, his/her requirements. The institution or department, as ultimate supplier, must try to reconcile all these different wishes and requirements. Sometimes the expectations will run parallel, but they can just as well end up in conflict. As far as possible, the requirements of all stakeholders should be translated into the mission and goals of an institution and into the objectives of a faculty and of the educational program and as far as this concerns research, the research programs. The challenge is to achieve the goals and objectives. If this is the case, then we can say that the institution, the faculty has "quality" (see Figure 7). Although it remains necessary to strive for a good description of the different requirements and aspects of quality, the lack of a definition should never be an excuse for not paying attention to quality or for not working for quality enhancement.

As said, an absolute definition of quality does not exist. For the sake of a common understanding, the following description of quality might be adopted:

Quality is achieving the formulated goals and aims in an efficient and effective way (fitness for purpose), assuming that the goals and aims reflect the requirements of all our stakeholders in an adequate way (fitness of purpose).

We have to take into account the following remarks when talking about quality:

- *Quality is not always the same as efficiency!*

  The discussion on quality assessment is often connected with the concept of "efficiency" (saving money, making more rational use of public resources). In assessing quality, an important question will be: *"Do we achieve the required level of quality at acceptable cost?"* An efficiency-oriented approach as such is a good starting point, but the problem is that efficiency is not always defined as "at acceptable cost", but often as "at minimal cost", and this may threaten quality. It may be very efficient to have lectures for a thousand students, but it is not effective. It may be considered efficient to have a very structured degree program with student assessments every four weeks, forcing students to work and to keep up with the program. However, does this method lead to the creation of an independent, and critically thinking graduate? It may be considered efficient to use only multiple-choice questions for student assessment, but does it enhance verbal and written communication skills?
- *Quality is context bound*

  When striving for quality, the main question is: *"Do we offer the stakeholders what we promise to offer."* This means that a starting point for judging our quality will be our promises (i.e. goals) and that the verdict "quality or no quality" will be based on the promises. Therefore, we have to look at our quality in the given context. McDonald's, for example, will strive for quality, and when we eat a fast food meal, we will probably get quality. However, this is not the same quality, as we will get when we have dinner in a restaurant with one or two stars in the Guide Rouge of the best restaurants. So, we cannot assess the quality of McDonald's with the same standards as those used to assess a star restaurant. This also means that we may never assess a regional Technical Institution, e.g in South America with the same standards that we apply to more sophisticated institutions like MIT, Berkley or the TH Zurich. If an institution claims excellence, other standards count than when an institution's aspiration is to contribute to the development of the country and the region. We cannot assess the quality of the University of the Amazonas against the standards applied to Berkley. Each level of quality has its price. The only common feature is that we may ask: "Will we get what we expect?"

Quality is context bound that is true. However, all institutions also like to play a role on the international stage. This means that an institution has to meet at least the basic standards that are applied to Technical Institutions in general. There is at least a bottom line for the threshold quality, although it is not clear what that bottom line is. This is something that the international community has to decide.

Having accepted a workable definition of quality, there is another hot topic: how do I Asses the quality? How to measure quality? What are the criteria for measuring quality? What are the standards against which quality is assessed? Talking about quality assessment, it is important to make a clear distinction between *criteria* and *standards*.

- *A criterion* can be defined as a specific aspect taken into consideration to make a judgement about quality. For example, the criterion (the aspect) we will look for might be *formulation of expected learning outcomes* or *computer facilities.*

- *Standard* is the level that a criterion must reach. Are there learning outcomes formulated and if so, is this done in an adequate way or more than adequate? Sometimes a criterion might be quantified: talking about computer facilities, the standard might be 1 computer per 5 students.

Criteria are valid in all circumstances and in all places. In fact all accrediting bodies, all over the world are looking at more or less the same criteria assessing the quality of a program, e.g.:

- Goals and objectives; expected learning outcomes
- Program content
- Program specification or description
- Program organisation
- Didactic concept/teaching/learning strategy
- Student assessment
- Staff quality
- Quality of the support staff
- Student profile
- Student advice/support
- Facilities & infrastructure
- Student evaluation
- Curriculum design & evaluation
- Staff development activities
- Benchmarking
- Achievements /graduates
- Satisfaction stakeholders

To know if a criterion is adequate/satisfactory, depends on the standard set for the criterion. Standards are context bound and may differ from situation to situation. As said, the standards to be applying to Berkley will be different from the standards applied to the university of the Amazonas.

3.3 The use of performance indicators and quantitative data

As it has already been stated, in a simplification of quality assessment we may say: *"define quality and look for a set of performance indicators to measure the quality."* We are living in an evaluative society which very much likes to measure everything: The performance of the public health system (number of patients treated, length of the waiting list for surgery), the performance of the police officer (number of fines, number of solved cases) and, of course, the performance of Technical Education (number of graduates, pass rates, average time spent in the institution). Managers and politicians in particular, are fond of such quantitative performance indicators (PI). They look for more and more hard, statistical data, because this is considered to be more objective. But the question is whether there is a real link between so-called performance indicators and quality. Opinion is divided. It is evident that whenever people try to derive quality directly from quantitative data, differences of interpretation arise. Consider, for example, the measurement of the quality of research. Is the total number of publications a true measure of quality? The analysis of information and experience gained elsewhere indicates that this is not always the case. Such performance indicators, like the number of articles, reveal the danger of using performance indicators. Once set, the indicator will be corrupted as soon as possible. Instead of publishing one good article, we see now that the article is split into several articles, because each counts for the record. Another example from the field of education: the interpretation of success rates. One faculty has a pass rate of 80%, another one has a rate of 60%. But does the figure tell us anything about the performance of the faculty? Does it tell us anything about the quality of education? Is the performance of institution Y with a pass rate of 80% superior to the achievement of institution X with a rate of 60%? Or has institution lowered its level? Or is institution X more selective in the first year?

A considerable amount of literature exists on performance indicators (PIs). A striking factor in the discussion on these is that there are two opposing parties. It is mostly governments who lay a strong emphasis on the importance of using performance indicators: they are optimistic about the possibility of determining the right indicators. Technical Education Institutions, on the other hand, are generally very reserved and sceptical about them. Many governments are trying to formulate performance indicators that would be useful in quality assessment, but so far without any success. The following reasons can be put forward:

- *The term "performance indicator' is very confusing*, despite many attempts to explain the meaning and functions of performance indicators. The problem is that a performance indicator does not always relate directly to the performance of an institution, but should rather be considered as statistical data. For example, one of the PIs used in the student population is the male-female ratio. However, this

indicator says nothing about the quality of an institution. It is more a government indicator that shows how far the objective of "gender balance" has been achieved.

- *People attach different functions to performance indicators*. Without using the term 'PI', it will be clear that the use of certain data (enrolment figures, student numbers, number of graduates, unemployment figures) is important. These data play an important role in monitoring and evaluation. Governments, on the other hand, often look to performance indicators as instruments for governing financial allocation. In fact, we can see attempts to establish a system of performance-related funding in several countries.
- *Transforming indicators into standards.* Looking at the various functions attributed to performance indicators, it is not unreasonable to fear that indicators will be transformed into standards. The success rates may be an indicator of achieving the goal of "enabling as many students as possible to graduate". A pass rate of 70% would appear to be more successful than a pass rate of 60%. But the figure says nothing about the quality of teaching. However, there may be a tendency to specify that a success rate of at least 70% should be achieved.

The conclusion should be that all attempts and all discussions so far have failed to produce a generally accepted set of performance indicators. Putting emphasis on the quantitative performance indicators, we run the risk to enforce reality by over-simplifying quality. Quality in Technical Education is more than a collection of figures and data. Although qualitative aspects are often more difficult to assess, we should not flee into quantitative aspects with fake objectivity. We have to learn to live with the idea that the judgement of quality in Technical Education is not an objective activity, but rather an activity with a human factor.

Is there a role for quantitative aspects (PIs) in quality assessment? What is the value of performance indicators as opposed to peer review or in combination with peer review? Looking at the sets of performance indicators that are often used, we see that quantitative indicators are often basic data, but are immediately decorated with the notion of a "PI": They cover numbers of students, numbers of staff, dropout rates, student-staff ratios, etc. When these data are used properly, the "performance indicators" raise questions but never give answers. The so-called qualitative performance indicators may be seen as elements that have an influence on quality aspects to be taken into account when looking at quality. The question is whether we can (or will) rely more on performance indicators than on the subjective judgements of peers. The role of performance indicators in quality assessment is a limited one, as can be illustrated by the following example:

I have a bottle of wine and want to assess its quality. Which aspects are important? First, I have to decide on which aspects I will assess the wine: acidity, tannin, alcohol percentage, and sediment. Of course, I can measure the wine on these aspects, but still I do not know whether the wine is good or not. Someone has to tell which figure is good and which not. But there are other aspects more important for the assessment: taste and smell. These aspects are not quantifiable. We need a panel that can judge the taste and smell as fine or not. (Vroeijenstijn 1995[12]); see Figure 8).

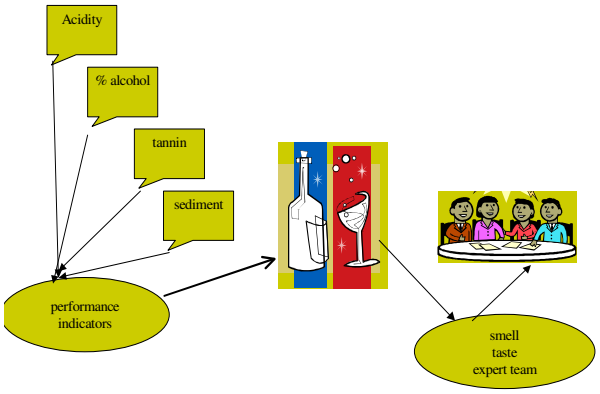


Figure 8: Relation between performance indicators and expert assessment

[12] *Vroeijenstijn, A.I (1995), Improvement and Accountability: Navigating between Scylla and Charybdis, London, Jessica Kingsley Publishers*

Working with performance indicators seems so attractive because it looks like they might provide a clear picture of strengths and weaknesses. But these analyses must be handled very carefully and must be complemented with other information. PIs play a role in quality assessment, but only a minor one. Performance indicators as the set of quantitative indicators play a role in supporting the opinion of experts. But these performance indicators can never have the last say or take the place of expert/peer review. The opinion of the experts must be based on facts and figures, but can never be replaced by performance indicators. Performance indicators should be used not as an end in themselves to draw definitive conclusions, but to trigger areas of concern and provide a catalyst for further investigation. It will be clear that performance indicators can never speak for themselves, but must be interpreted by experts. Where they seem to be objective, they are not really performance indicators, but only statistical data or management information. Just as is the case for the concept of "quality", it is also a waste of time searching for the philosopher's stone: a set of performance indicators to measure quality.

4.Registration

Section 5 (1) (a) of the National Council for Technical Education Act, 1997 empowers the Council to register technical institutions capable of delivering courses. Registration is mandatory [Registration Regulations (Government Notice No. 279 published on 26/10/2001). At the moment of writing NACTE has registered 472 Technical Institutions. Registration of an institution means license the institution to admit students and to offer programs, leading to one of the level awards of the framework of Technical and Vocational Education and Training (TVET) qualifications.

4.1 Registration new Technical institutions

Registration (Licensing) is a process in which NACTE satisfies itself that an institution has been legally established and is viable for conducting training programmes sustainably. An institution, looking for licensure, sends a letter to NACTE expressing interest to establish a technical institution.

To be registered and get a license, the institution will provide NACTE with the following information:

1) Vision, mission, objectives, strategic and academic plans to achieve its goals;
2) Intended academic programmes with curricula and rationale to the labour market and competition with other local providers;
3) Administrative and academic regulations;
4) Academic and support staff information, contracts and CVs;
5) Student admission requirements and 5-year enrolment projections;
6) Information regarding physical infrastructure, financial and learning resources;
7) Legal documents related to occupancy;
8) Institutional governance and organization structure
9) Institutional layout map showing its location and size;
10) Fee structure and rationale.

The registration process

- NACTE verify the document(s) submitted by applicant institution.
- NACTE may appoint experts from the relevant occupational field as verification team for physical verification of the applicant institution. NACTE may also send a NACTE official to check the physical conditions.
- The verification team/NACTE official submits a report to the relevant subject board for recommending the registration stage;
- The subject board submits a report to the Council for decision;
- NACTE informs the applicant institution on the decision of the Council by official letter

The decision might be:

* *Provisional Registration*: Granted to institutions that either have deficiencies that they can redress in a short duration before they are considered for full registration or have just started to admit students, and have enough resources for full or considerable part of the programme.

*Full Registration***:** Granted to institutions that are fully operational and have acquired enough experience, human, physical and financial resources to ensure sustainability for running its programmes.

The registration will be valid for 3 years. Within those 3 years, the institutions has to be accredited. Within 18 months of registration, the institution has to send a Self Assessment Report about the IQA-system to NACTE.

4.1 Registration new programs

An institution, that has been registered, but not yet accredited, has to ask registration of a new program. To be registered and get a license to offer the program, the institution will provide NACTE with the following information:

1. Name of the program
2. Competence level descriptor in the NQF
3. Rationale to start the new program
4. 5-year enrolment projections;

5. Student admission requirements
6. The resources to run the program
7. The job profile, the program is based on
8. The expected learning outcomes
9. The content of the program
10. The staff offering the program
11. The facilities

The registration process

- NACTE verify the document submitted by applicant institution.
- NACTE may appoint experts from the relevant occupational field as verification team for physical verification of the applicant institution. NACTE may also send a NACTE official to check the physical conditions)
- The verification team/ NACTE consultant submits a report to the relevant subject board with advise about registration.
- The subject board submits an advise to the Council for decision;
- NACTE informs the applicant institution on the decision of the Council by official letter

The decision might be registration or non-registration. Registration means: license to offer the program. It might be expected that the program will to deliver qualified graduates. The registration of the program is valid for 3 years. The license to offer the program will be withdrawn, if the institution is not accredited within those 3 years.

5. THE QUALITY AUDIT

NACTE published three documents on Quality Assurance [13] . In these documents, NACTE emphasises the importance of a well functioning Inter Quality Assurance system and stresses the necessity of a Quality Management plan. Chapter 5 of the handbook for the TI's[14] describes clearly how a TI can analyse how far the institution has a well functioning Internal Quality Assurance (IQA) system. Based on a self-assessment, the TI knows the strengths and the weakness of the system. The outcomes of the self-assessment are given in the Self Assessment Report (SAR). The SAR is the basis for the Quality Audit.

An institute, that is registered, has to be accredited within 3 years time. Waiting for accreditation, it is compulsory for the registered institution, to send within 18 months after the registration a SAR of its Internal Quality Assurance system. NACTE will assess the IQA-system based on the SAR and makes recommendations for improvement.

Ion request of a TI or on its own initiative NACTE might organise a Quality Audit with site visit.

5.1 The Quality Audit

A Quality Audit in the framework of Tertiary Education is the process of checking that the TI has a robust Internal Quality Assurance system. An IQA system is aiming at setting up, maintaining and improving the quality and standards of teaching, and service to community. The overall objective is to continuously promote and improve the quality of the programs, their mode of delivery, their support facilities, and finally the outcome: the graduate.
The use of the instrument of Quality Audit assumes that a Quality Audit will reveal the potential of a TI to offer quality programs and to deliver competent graduates. The existence of a well functioning IQA system is a sine qua non for institutional accreditation.

5.2 The organisation of the Quality Audit

There are three modalities:

- An institute, that is registered, has to be accredited within 3 years time. Waiting for accreditation, it is compulsory for the registered institution, to send a Self-assessment report of its Internal Quality Assurance system within 18 months after the registration. NACTE will assess the IQA-system based on the SAR and makes recommendations for improvement.
- The TI takes the initiative and invite NACTE to organize a Quality Audit
- NACTE takes the initiative and announce that a Quality Audit will be organized for the TI.

In all 3 cases, the Quality Audit process starts with a self-assessment of the IQA system by the institution. The way it will be done is given in chapter 5 of the handbook for the TI's. [15]

In the 1st modality, there will t be no site visit, but NACTE will check the SAR using table 3. For modality 2 and 3, NACTE will organise a site visit. The basis for the site visit is the outcome of the self-assessment process, the SAR. The time given for the self-assessment is 6 months. Because the members of the Audit team need time for preparation and for reading the SAR, a Quality Audit can only take place 7 months after the formal announcement.

After the formal announcement, NACTE start the preparations for the Quality Audit. This concerns:

- Training of the institution in conducting the self assessment
- Appointment of the members of the audit team
- Training of the members of the audit team
- Organization of the site visit

5.2.1. The audit team

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13 *a)Guidelines for Preparation of Quality Management Plan for Institutions Accredited by NACTE, June 2004*
b)Framework for Institutional Quality Assurance, August 2004
c)Guidelines for Establishing Institutional Policies and Procedures on Quality Control and Quality Assurance, June 2010

14 *Quality in Technical Education, Handbook for Quality Assurance Institutions in Tanzania, draft March 2015*

15 *Ibidem*

An effective audit team, commissioned to carry the Quality Audit, may have at least 3 members. Membership of an expert team should include:

- A chairperson, totally independent and unconnected with the TI to be assessed. The chair should have experience with management structures in Technical Institutions and have experiences with the developments that have taken place over the last few years
- An expert in quality assurance
- An expert from the labour market area or from a professional body, covering the nature of the TI

There are some conditions that members of the audit team have to meet:

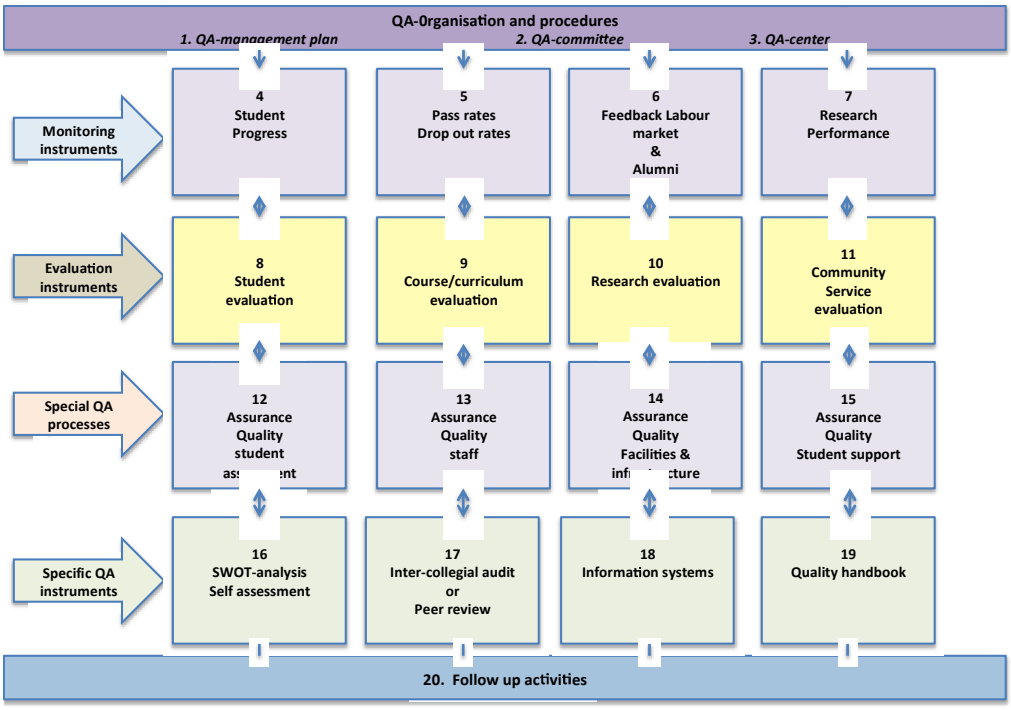
- Members should act independently
- There should be no conflicts of interest. Members should stand to gain nothing from their verdict
- Members must be accepted by the institution to be audited. This mean that NACTE has to check if the institution has any serious objection against one of the members. It is up to NACTE to decide if the objection is justified.

5.2.2. Preparatory work of the audit team

As soon as the TI has sent the self-assessment report to the assessment team, the members will study the report carefully before the team comes together in a preliminary meeting. The expert team will meet before the planned site visit for training and to prepare itself for the audit. The meeting will be held on the day before the site visit begins. The topics in the meeting are:

- *Discussion on the frame of reference, used for making judgments (= the model for IQA)*
  It is important that all members of the audit team understand the requirements for an IQA-system. Therefore it is important to discuss the model for an IQA-system (figure 9).

Figure 9 : model for an IQA system



- *Discussion on the self-assessment report*
  During the meeting, the team will discuss the SAR and formulate questions to be asked during the site visit

5.2.3. The site visit

After the preparatory meeting, the expert team will start the site visit. The SAR is the basic source of information for the audit team and should provide the basic information. But other sources should also be used:

- Interviews with management, QA officers, staff and students
- Investigation of documents providing evidence of meeting the criteria

The site visit, at average will take 2 days, but this depends on the size of the institution.

NACTE had confirmed the program for the site visit in consultation with the TI according to a given format (see Table 6). Beforehand, appointments will have been made with whom the audit team like to talk. The interviews start with a discussion with the *writers of the self-assessment report.* In this interview, the team can ask for clarification of any obscurities and explanation of any topics that are not totally clear.

Table 6: Draft program for a quality audit

Time	Activity
Day 1 **09.00-12.00**	Audit Team meet in the hotel for information about their task and discussion on: • The SAR • Specific questions • The program of the site visit
12.00 – 13.00	Welcome by management TI; joined lunch
13.00 - 18:00	Interviews with: • the writers of the self-assessment report • management • QA-office • staff members • students Studying documentation
19:00-20:00 **20:00**	Dinner for the expert team Short meeting for discussion on the findings of the day and for setting the program for the next day
Day 2 **9:00 - 11:00**	Additional interviews, if needed/ consultation documents
11:00 - 13:00	Formulation of the findings
13:00 - 13:30	Feedback
13:30	End of the visit

5.2.4 Formulating the findings

The morning of the second day is used for drawing up the findings. There are about two hours available for this difficult task. The best method is to start with completion of the checklist (see appendix 1) by each member individually. The committee members are requested to give a mark between 1 and 7 for the various aspects. To have some idea of the value of the figures, bear the following ideas in mind:

- *Score 1-2 when you believe this aspect should be considered as critical. The TI has to take action. Something has to be done and cannot wait.*
- *Score 3 when you believe this aspect is unsatisfactory. It must be improved, but does not directly threaten the quality.*
- *Score 4 when you believe the situation is satisfactory. The TI may be satisfied, but there is no reason to be proud.*
- *Score 5 when you believe this topic can be assessed as more than satisfactory, but not excellent.*
- *Score 6 when you believe this topic can be assessed as more than satisfactory and can be seen as an example of good practice.*
- *Score 7 when you believe this topic can be assessed as excellent. The TI can be proud of it and it is certainly a strong point.*

The overall assessment of the different aspects is based on the scores given to each sub-aspect in the category. But, of course not all sub-aspects have the same weight. This means that you cannot calculate mathematically an average. You have to balance the various sub-aspects and to judge the weighting of each of them. Positive aspects may compensate for some negative ones. Summarizing the outcomes per category is not a mathematical enterprise, nor ticking boxes. One has to balance and weight the importance of each criterion. The same counts for the overall judgment of the IQA system. One cannot calculate the average of the categories, but weight the importance.
After completing the checklist by the members, the chairperson will discuss the topics and fix the judgement of the team and complete the general overview (table 7) Summarizing the outcomes for each category shows the strengths and weakness of the IQA system.

Table 7 : Summary of the assessment of the IQA system

		1	2	3	4	5	6	7
1	***QA Organisation***							
2	***Monitoring***							
3	***Evaluation Instruments***							
4	***Special QA processes***							
5	***Specific QA instruments***							
6	***Follow up***							
	Overall judgment about the QA -system							

After completing the list, the resting time will be used to draw up an inventory of the topics to be treated in the oral presentation.

5.2.5 The oral presentation

The oral presentation to the board of the institution at the end of the visit holds a special position in the process. Sometimes, findings and conclusions are not really suitable for the report, but the team would like to make a critical statement about them. In that case, the oral presentation can be used to formulate strongly worded recommendations. In order to do justice to this principle, the oral presentation is not public; the team reports to the management board. The chairperson should stress that this is an interim report; some conclusions may change during the final discussion on the report. It is advisable not only to mention weaknesses, but also strengths.

5.2.6 The expert team's report

After the site visit, the chairperson and secretary will write a first draft of the report, using the completed checklists and the minutes of the oral presentation. Table 8 gives an outline of the content of the assessment report.

Table 8 : Content of the audit report at program level

Introduction • *Background of the Quality Audit: Why is the assessment done?* • *Composition of the audit team* • *Short description of the TI*
Chapter 1: QA Organization
Chapter 2: The Monitoring instruments *2.1 student progress* *2.2 Pass rates and drop out* *2.3. Program organisation* *2.4 Feedback labour market + alumni* *2.5 Research performance*
Chapter 3 Evaluation instruments *3.1 Student evaluation* *3.2 course + curriculum evaluation* *3.3. research evaluation (if applicable)* *3.4. community service evaluation*
Chapter 4: Specific Quality assurance processes *4.1 Assurance student assessment* *4.2 Assurance quality of the staff* *4.3. Quality assurance facilities* *4.4. Quality assurance student support*
Chapter 5: Specific instruments *5.1 Self-assessment/Swot analysis* *5.2. inter-collegial audit/peer review* *5.3. Information system* *5.4 Quality handbook*
Chapter 6: Follow up activities
Chapter 7 Strengths-weaknesses analysis *7.1 Summary of strengths* *7.2 Summary of weaknesses*
Summary of the recommendations

The 1st draft of the report will be discussed with the team members. The 2nd draft will be sent to the TI for comment. The comments should concern only factual errors and inaccuracies, not the differences in opinion. The audit team will decide what to do with the comments..

5. 3 NACTE and the Quality audit

5.3.1 The compulsory self-assessment report

Within 18 months of registration, the TI had conducted a self-assessment of the IQA-system. The NACTE office has checked the SAR. It will report the outcomes to the Council, including recommendations for improvement. The Council will decide if the IQA system is satisfactory or will lead to a warning of the institution.

5.3.2 The report of the Quality Audit team

The final report of the audit team will be sent to the Council. The Council will check if the Quality Audit has been done according the rules and see if the report contains all information needed. If the audit report is accepted, the Commission will follow the advise of the audit team. The decision might be:

- To provide the TI with the specific Quality Label for the IQA system as it is considered to meet the requirements in a satisfactory way
- To formulate recommendations the TI has to meet for the improvement of the IQA system. The TI will report yearly to NACTE about the state-of-the-art.

5.3.3. Appeal mechanism

If the institution disagrees with the way the assessment is done, disagree with the findings of the audit team or the decisions it may contact NACTE. NACTE will install an independent committee that will investigate the complaints. The verdict of the independent committee is binding both for NACTE as the institution.

5.4 Concluding Remarks

The guidelines given in this chapter are intended to help the audit team, not to make the quality audit a bureaucratic process. Every TI is different. Concerning the IQA-system, there is no one fit for all. The guidelines should not be a straitjacket. However, it should take very weighty arguments to deviate from the process described. The approach given here will save the experts time and offer the TI a fair assessment.

6. Institutional accreditation

NACTE has the task to accredit Technical Institutions (section 5(1) (a) of the National Council for Technical Education Act, 1997. Accreditation means that NACTE will check if the institution indeed is offering quality based on past performance and provide the institution with a quality label. Because accreditation is based on past performance it is necessary for the institution to have at least one cohort of graduates. Institutional Accreditation will take place within 3 years after registration.

6.1 Institutional accreditation

NACTE describes Accreditation as *an approval of the Council granted to an institution on account of having programmes and quality assurance system that ensures the provision of set qualifications and educational standards.*[16] One may also say: "*Accreditation is a formal decision by a regulatory body, based on an overall assessment of an institution. The assessment is based on at least minimum requirements and it concerns a yes/no decision.*

The main purposes of accreditation are:

- To assure the educational community, the general public and other stakeholders that an institution:
    - Has clearly defined objectives appropriate to technical education and training;
    - Has established conditions under which training achievements can reasonably be measured;
    - Is organized, staffed, well resourced and sustainable and that it can be expected to continue to be so; and
    - Meets educational and training standards demanded by the relevant occupational sector.

Institutional accreditation will establish stakeholder confidence that provisions (input, process and outcomes) fulfils expectations or measures up to threshold minimum requirements

6.2 The organisation of the Institutional Accreditation

There are three possibilities:

- In the case of new registrations, the Institutional Accreditation will be compulsory within 3 years after registration.
- NACTE takes the initiative (or for accreditation or re-accreditation) and announce that an Institutional Accreditation will be organized for the institution.
- The institutions takes the initiative and invite NACTE to organize an institutional accreditation

In all cases, the Institutional Accreditation process starts with an institutional self-assessment by the institution. The way it will be done is given in the chapter 6 of the handbook for the TI's). The basis for the Institutional Accreditation is the outcome of the self-assessment process, the SAR. The time given for the self-assessment is 6 months. Because the members of the expert team need time for preparation and for reading the SAR, the Institutional Accreditation can only take place 7 months after the formal announcement.

After the formal announcement, NACTE start the preparations for the Institutional Accreditation. This concerns:

- Training of the TI in the self assessment
- Appointment of the members of the expert team
- Training of the members of the expert team
- Organization of the site visit

6.2.1. The expert team

Composition of the expert team

An effective assessment team, commissioned to conduct the Institutional Accreditation, will have at least 5 members + secretary. Membership of an expert team should include:

[16] *NACTE, procedures for registering and accreditation Technical Institutions in Tanzania*

- A chairperson, totally independent and unconnected with the institution to be assessed. The chair should have experience with management structures in Technical Institutions and have experiences with the developments that have taken place over the last few years
- An expert in organisation & management
- 2 experts in the specific field of the institution. One coming from the academic world, one from the labour market area or from a professional body
- An expert in quality assurance

There are some conditions that members of the expert team have to meet:
- Members should act independently
- There should be no conflicts of interest. Members should stand to gain nothing from their verdict
- Members must be accepted by the institutions to be assessed. This mean that NACTE has to check if the institution has any serious objection against one of the members. It is up to NACTE to decide if the objection is justified.

What is the expert team looking for?

The expert team assesses the quality of the institution. The SAR will provide detailed information. During the site visit, the team will look for evidence with the following questions in mind:
- Provide the organisation and management satisfactory confidence in the institution?
- Is there enough evidence for meeting the threshold standards?
- Are the departments of the institutions able to deliver the programs at offer?

NACTE organise an *Institutional* Accreditation, not a *program* accreditation. The expert team will not assess individual programs, but will try to get a judgement about the programs in general, with the aspects mentioned in the model for analysis of the quality of the institution (see figure 6).

6.2.2 Preparatory work of the expert team

As soon as the institution has sent the self-assessment report to the expert team, the members will study the report carefully before the team comes together in a preliminary meeting. The expert team will meet before the planned site visit for training and to prepare itself for the assessment. The meeting will be held on the day before the site visit begins. The topics in the meeting are:

- *Discussion on the frame of reference, used for making judgments (= the analysis model for the quality of the institution)* It is important that all members of the expert team understand the threshold requirements set for an institution. Therefore it is important to discuss the model for the analysis of the quality of an institution (figure 10). Concerning criteria we have to keep in mind that there are no absolute and objective criteria and standards. The criteria for assessing the quality given in the handbook of the TI's are based on the criteria as formulated by external quality assessment agencies, e.g. European, American, Asian, Australian and South African accrediting bodies, among others. After studying many sets of standards and criteria, a common denominator has been formulated. In general, one may say that the formulated criteria can be seen as the minimum criteria.

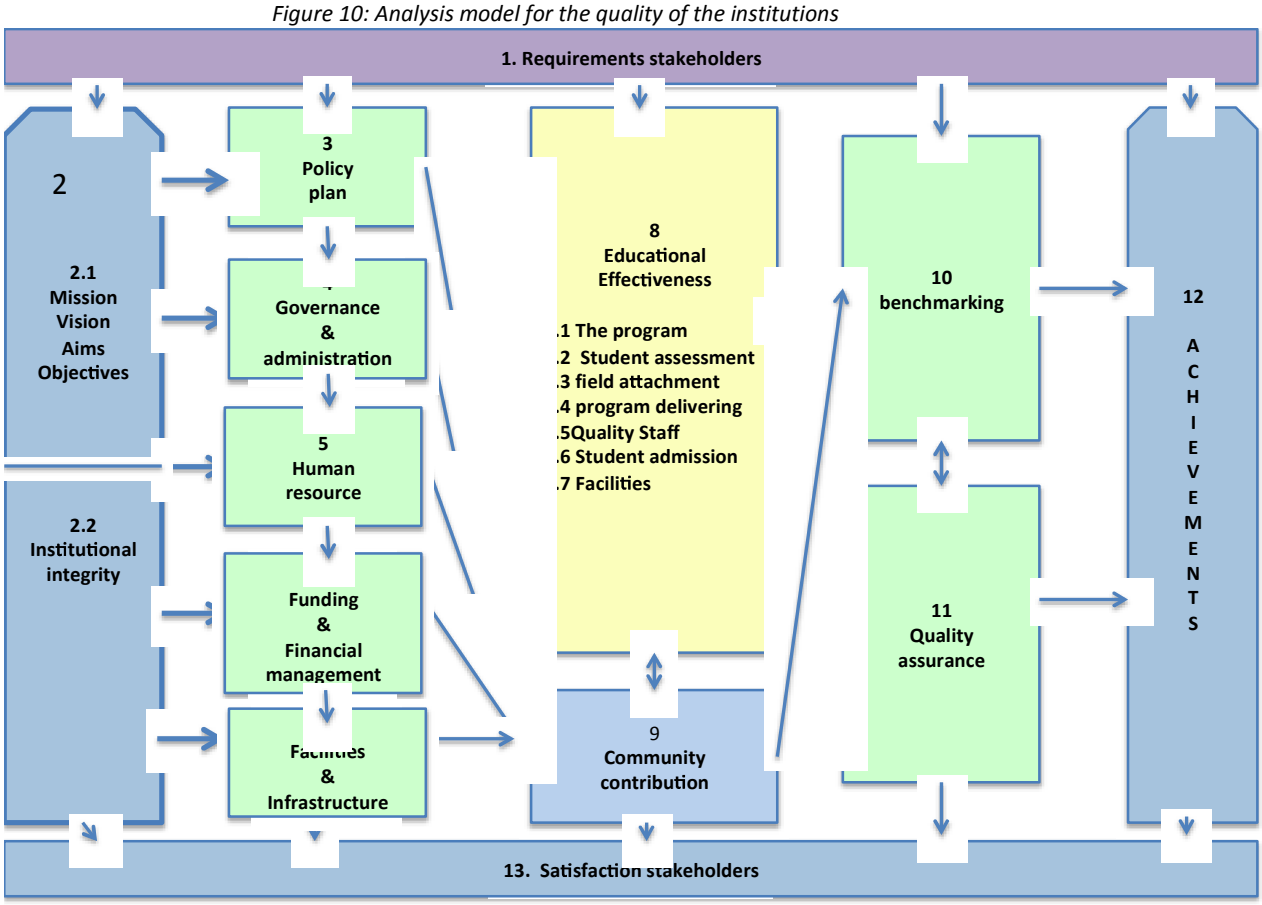
  The Academic standards, formulated by NACTE are included in the model. Table 9 shows the number of the cells of the analysis model, where the NACTE standards are discussed.

Table 9: NACTE standards and the analyze model of the quality of an institution

NACTE Standard	**Cell nr. Analysis model**
Standard 1: Institutional Vision and Mission;	2
Standard 2: Governance and Administration;	4
Standard 3: Institutional Integrity;	2
Standard 4: Institutional Effectiveness;	4/8
Standard 5: Educational Programmes;	8/11
Standard 6: Student Information and Admission to Programmes;	8
Standard 7: Student Guidance and Support;	8
Standard 8: Staff Selection, Appraisal and Development;	5/8
Standard 9: Physical Resources	7
Standard 10: Financial Resources.	7

- *Discussion on the self-assessment report*
  During the meeting, the team will discuss the SAR and formulate questions to be asked during the site visit.

Figure 10: Analysis model for the quality of the institutions



6.2.3. The site visit

After the preparatory meeting, the expert team will start the site visit. The SAR is the basic source of information for the expert team and should provide the basic information. But other sources should also be used:

- Interviews with management, QA officers, staff and students
- Investigation of documents providing evidence of meeting the criteria

The site visit will, at average, take 2.5 days. The time depends on the size of the institution.

NACTE had confirmed the program for the site visit in consultation with the institution according to a given format (see table 10).

Beforehand, appointments will have been made with whom the expert team like to talk. The interviews start with a discussion with the *writers* of *the self-assessment report.* In this interview, the team can ask for clarification of any obscurities and explanation of any topics that are not totally clear.

Table 10: Draft program for a quality audit

Time	Activity
Day 1 **15.00** **18.00**	Expert Team meets in the hotel for information about their task and discussion on: • The SAR • Formulation specific questions • The program of the site visit Welcome by management of the institution; joined diner

Day 2 **09.00– 17.00**	Interviews with: • the writers of the self-assessment report • management • QA-office • staff members • students Studying documents
19:00-20.00	Dinner for the expert team Short meeting for discussion n the finding of the day and for setting the program for the next day
19.00-20:00 **20:00**	Dinner for the expert team Short meeting for discussion on the findings of the day and for setting the program for the next day
Day 2 **9:00 - 11:00**	Interviews with head of department(s) Interview management
11:00 - 13:00	Visit facilities & infrastructure
13.00 – 16.30	Formulation findings
16.30 - 17.00	Feedback to the institution
17.00	End of the visit

6.2.4 Formulating the findings

The afternoon of the second day is used for drawing up the findings. There are about 3.5 hours available for this difficult task. The best method is to start with completion of the checklist (see appendix 2) by each member individually. The team members are requested to give a mark between 1 and 7 for the various aspects. To have some idea of the value of the figures, bear the following ideas in mind:

- *Score 1-2 when you believe this aspect should be considered as critical. The institution has to take action. Something has to be done and cannot wait.*
- *Score 3 when you believe this aspect is unsatisfactory. It must be improved, but does not directly threaten the quality.*
- *Score 4 when you believe the situation is satisfactory. The TI may be satisfied, but there is no reason to be proud.*
- *Score 5 when you believe this topic can be assessed as more than satisfactory, but not excellent.*
- *Score 6 when you believe this topic can be assessed as more than satisfactory and can be seen as an example of good practice.*
- *Score 7 when you believe this topic can be assessed as excellent. The institutions can be proud of it and it is certainly a strong point.*

The overall assessment of the different aspects is based on the scores given to each sub-aspect in the category. But, of course not all sub-aspects have the same weight. This means that you cannot calculate mathematically an average. You have to balance the various sub-aspects and judge the importance of each of them. Aspects with positive outcomes may compensate for some negative ones. Summarizing the outcomes per category is not a mathematical enterprise, nor ticking boxes. One has to balance the importance of each criterion. The same counts for the overall judgment of the quality of the institution. One cannot calculate the average of the categories, but look at the importance of the category. Community contribution and benchmarking are less important than Educational effectiveness or Quality Assurance.

Summarizing the outcomes for each of the 13 categories shows the strengths and weakness of the institution (table 11)

Table 11: summary quality aspects institutional analysis

no		1	2	3	4	5	6	7
1	Requirements stakeholders							
2	Mission, vision, aims, objectives; integrity							
3	Policy plan							
4	Governance & administration							
5	Human resource							
6	Funding & Financial management							
7	Facilities & infrastructure							
8	Educational effectiveness							
9	Community contribution							
10	Benchmarking							
11	Quality assurance							
12	Achievements							
13	Satisfaction stakeholders							
	Overall judgment of the institution							

After completing the list, the resting time will be used to draw up an inventory of the topics to be treated in the oral presentation.

6 .2.5 The oral presentation

The oral presentation to the management of the institution at the end of the visit holds a special position in the process. Sometimes, findings and conclusions are not really suitable for the report, but the team would like to make a critical statement about them. In that case, the oral presentation can be used to formulate strongly worded recommendations. In order to do justice to this principle, the oral presentation is not public; the team reports to the management board. The chairperson should stress that this is an interim report; some conclusions may change during the final discussion on the report. It is advisable not only to mention weaknesses, but also strengths. The chairperson does not tell the advise about accreditation.

6.2.6 The expert team's report

After the site visit, the chairperson and secretary will write a first draft of the report, using the completed checklists and the minutes of the oral presentation. Table 12 gives an outline of the content of the assessment report.

Table 12: Content of an assessment report of an Institutional Accreditation

Introduction • *Background of the Institutional Accreditation: Why is the assessment done?* • *Composition of the expert team* • *Short description of the Institution*
Chapter 1: Requirements and expectation stakeholders
Chapter 2: The organisation *2.1 Mission, vision, aims and objectives* *2.2 Institutional integrity* *2.3 The policy plan* *2.4 Governance and Administration* *2.5 Human Resource* *2.6 Funding and financial management*
Chapter 3 Educational effectiveness *3.1 The programs* *3.2 Student assessment* *3.3 Field attachment/workplace training components* *3.4 Program delivery* *3.5 Quality of the staff* *3.6 Students admission* *3.7 Facilities and infrastructure*
Chapter 4: Community service
Chapter 5: Quality Assurance

5.1 Internal Quality Assurance *5.2 Benchmark*
Chapter 6: Achievements of the institution *6.1 graduates/graduate profile* *6.2 Research output (as far as applicable)* *6.3 Community services*
Chapter 7 Strengths-weaknesses analysis *7.1 Summary of strengths* *7.2 Summary of weaknesses*
Summary of the recommendations

For each topic the following format will be followed:

- What is said in the SAR about this topic?
- What are the findings of the expert team?
- Conclusion
- Recommendations

Making recommendations, the expert team must keep in mind:

- To summarize the recommendations at the end
- Prioritize the recommendations as far as possible
- Ask it self if it is a realistic recommendation
- The expert team must make clear for whom the recommendations is made
- The team should not ride hobbyhorses
- If there are many recommendations, the team has to ask it self if they all are important

The 1st draft of the report will be discussed with the team members. The 2nd draft will be sent to the institution for comment. The comments should concern only factual errors and inaccuracies, not the differences in opinion. The audit team will decide what to do with the comments. If the institution disagrees with the way the assessment is done or disagree with the findings of the audit team, it may contact NACTE.

6.3 NACTE and the Institutional Accreditation

The final report of the audit team will be sent to the Council. The expert team gives its advise about accreditation or not accreditation in a side letter.

The Council will check if the Institutional Accreditation has been done according the rules and see if the report contains all information needed. If the assessment report is accepted, the Council will follow the advise of the expert team. The decision might be:

- *Conditional Accreditation:*
  The Council grants conditional accreditation to an institution where the Council is of the opinion that there are certain requirements to be fulfilled by the institution. The term, in which the condition has to be fulfilled, is given. NACTE will check if the conditions are fulfilled. Where the institution fails to fulfill the requirements within the time, then the Council may:
  - Cancel the conditional Accreditation granted to the institution (and so the registration); or
  - After being satisfied that, there was reasonable cause for failure to comply, extend the time for conditional Accreditation to such other time, as it may be determined.
- *Full Accreditation:*
  The Council grants full accreditation to institutions, which meet adequately the accreditation requirements.

Accreditation is valid for 5 years. The institution is expected to send after 3 years a mid term report to NACTE

If the institution disagrees with the way the assessment is done, disagree with the findings of the audit team or the decisions it may contact NACTE. NACTE will install an independent committee that will investigate the complaints. The verdict of the independent committee is binding both for NACTE as the institution.

6.4 Concluding Remarks

The guidelines given in this chapter are intended to help the expert team, not to make external quality assessment a bureaucratic process. Each expert team will tend to look for its own approach; every institution is different. The guidelines should not be a straitjacket. However, it should take very weighty arguments to deviate from the process described. The approach given here will save the experts time and offer the institution a fair assessment.

7. Program accreditation

NACTE has the task to validate and approve the programs of an institution. An instrument for assessing the quality of the programs is program accreditation. The input for the Program Accreditation is the self-assessment report (SAR) of the department and the program involved.
Because it will not be possible always to organise a programme assessment with a site visit, NACTE might use the following modalities:

1 *The Institutional Accreditation showed some doubts about a program in the institution and NACTE will verify the quality by an individual Program Accreditation.*
2 *NACTE takes the initiative and announces a nation wide Program Accreditation for a certain type of programs (e.g accountancy or nursing). An advantage of the nation wide approach is that there is a possibility of benchmarking of the programs in the different institutions. This comparative character of the Program Accreditation makes it possible to have a good overview of the state-or-f-the-art in that discipline/subject. The programmes involved are expected to conduct a self-assessment. An expert team, installed by NACTE, will assess the quality without site visit*
3 *The institution ask NACTE to organise a program accreditation*

The basic information will always be the SAR. This chapter offers the instrument program assessment/accreditation.

7.1 Program accreditation

In the framework of an Institutional Accreditation (see chapter 6 of the handbook), *educational effectiveness* is one of the aspects that will be assessed. It concerns the following aspects:

- The programs
- Student assessment
- Field attachment/workplace training components
- Program delivery
- Quality of the staff
- Students admission
- Facilities and infrastructure

However, looking at these aspects in the framework of the Institutional Accreditation, means looking at the criteria in a general way and not program specific. The question is e.g. are learning outcomes formulated for the programs? However, there is not asked for “What are the learning outcomes of this specific program?” This is the aim of the program accreditation.

The basic question is*: how can NACTE assure the quality of the programs with a minimum investment of time and money?* The question is important because NACTE has to cope with around 500 institutions. Assuming that an institution offers an average of 3 programs, this means that NACTE has to validate/approve around 1500 programs. Taking into account an accreditation period of 5 years, this means the validation/approval of 300 programs a year. The process will be simplified by the introduction of Program Accreditation, with or without site visit. This system will replace the departmental validation and the curriculum validation/approval. It will be clear that it is nearly impossible to have a Program Accreditation with site visit of all programs in a period of 5 years. Nevertheless, NACTE has the task to monitor the quality of the programs.

7.2 The organisation of the Program Accreditation

Because it will not be possible always to organise a programme assessment with a site visit, NACTE might use the following modalities:

1 The Institutional Accreditation showed some doubts about a program in the institution and NACTE will verify the quality by an individual Program Accreditation.
2 NACTE takes the initiative and announces a nation wide Program Accreditation for a certain type of programs (e.g accountancy or nursing). An advantage of the nation wide approach is that there is a possibility of benchmarking of the programs in the different institutions. This comparative character of the Program Accreditation makes it possible to have a good overview of the state-or-f-the-art in that discipline/subject. The programmes involved are expected to conduct a self-assessment. An expert team, installed by NACTE, will assess the quality without site visit
3 The institution ask NACTE to organise a program accreditation

If it will not be possible to organise external assessment for all institutions with a site visit, the following procedure may be adopted:

- NACTE chooses in a certain year a specific discipline (subject) and invites the institutions offering the program(s) to conduct a Self-Assessment according the guidelines in the publication *Quality in Technical Education, Handbook for Quality Assurance for the Technical Institutions in Tanzania* (chapter 7).
- After 6 months, the institution will send the self-assessment report (SAR) to NACTE.
- An external team, installed by NACTE will check the SARS. If there is doubt about the quality of the program NACTE may organise a site visit to the institution.
- If there is no doubt, the expert team will advice the sector board about validation for 5 years.

In all 3 cases, the Program Accreditation process starts with a self-assessment by the department, offering the program. The basis for the Program Accreditation is the outcome of the self-assessment process, the SAR. The time given for the self-assessment is 6 months. Because the members of the expert team need time for preparation and for reading the SAR, the Program Accreditation with site visit can only take place 7 months after the formal announcement.

After the formal announcement of the program assessment with site visit, NACTE start the preparations for the Program Accreditation. This concerns:

- Training of the institution (if needed)
- Appointment of the members of the expert team
- Training of the members of the expert team
- Organization of the site visit

7.2.1 The expert team

Composition of the expert team
An effective expert team, commissioned to carry out an external program assessment, may have at least 5 members. Membership of an expert team should include:

- A chairperson, totally independent and unconnected with the program to be assessed. The chair does not need to be an expert in the field, but should have the confidence of those who are in the team. If possible, the chair should have experience with management structures in higher education institutions and with the developments that have taken place over the last few years
- Two experts on the subject area/discipline in question
- An expert from the labour market area taking up graduates and/or from the professional association
- An expert on education/learning processes.

There are some conditions that members of the expert team have to meet:

- Members should act independently
- There should be no conflicts of interest. Members should stand to gain nothing from their verdict
- Members must be accepted by the department to be assessed. This means that NACTE has to check if the institution has any serious objection against one of the members. It is up to NACTE to decide if the objection is justified.

Retired staff can be invited to participate on the grounds that they are more independent (and have more time available). However, it is also important to have members still working in the field and with a good knowledge of recent developments in the field.

7.2.2 Preparatory work of the expert team

In general, the task for the expert team can be described as follows:

- *To form an opinion about the standard of the curriculum and the quality of the educational process, including the organisation of education and the standard of the graduates on the basis of information supplied by the department and by means of discussions held on site. In assessing quality, the team must look at the requirements and expectations of the student, the faculty/discipline and society, and, in particular, prospective employers.*
- *To make suggestions on quality improvement.*

An assessment team trying to fulfil its task will encounter a lot of problems, because the generally formulated task means that the team will tend to form opinions about everything. Therefore, for the benefit of both the team and the faculty, the terms of reference should be operationalized into a number of questions that can be formulated on the basis of the SAR.

Preparatory work of the team members

As soon as NACTE has decided about the site visit, the SAR of the department involved will be sent to the members of the team. The members will study the report carefully before the team comes together in a preliminary meeting. As a starting point for the discussions during the preliminary meeting, each member will be invited to answer the following questions with regard to the self-assessment report:

- Is the report sufficiently critical and analytical?
- Have the problems that face the faculty been clearly formulated? Has the department indicated clearly how it will cope with the problems?
- Are you able to form a picture of the content of the curriculum, given the description in the report?
- Have expected learning outcomes been satisfactorily operationalized?
- Do you think the objectives and goals have been satisfactorily translated into the program?
- Is the curriculum well balanced?
- Can the program, as described in the report, be done in the set time?
- Do you think it is possible to produce good graduates with this curriculum?
- Do you believe the curriculum assures the expected qualifications (the NTA)?

The members will submit the answers to these questions to the secretary of the team, who will summarise the questions.

- *Preliminary team meeting*

Normally the expert team will meet some time before the planned site visit for the training session and to prepare itself for the assessment. If this is not possible, the meeting will be held on the day before the site visit begins. The topics in the meeting are:

- *Discussion on the Qualification standard*
  Is there a job profile formulated with clear purpose of the Qualification? What are the learning outcomes? What are the consequences for the curriculum?
- *Discussion on the self-assessment report*
  During the meeting, the team will discuss the Self-assessment report and formulate questions to be asked during the site visit.
- *Discussion on the site visit program*
  The chairperson will set a program for the site visit in consultation with the department. The program will be discussed to see if it fits the team's approach. Table 9 provides a format for a site visit program.

The preparatory meeting is also important for making the group of experts into a cohesive team. Many a review team has complained that the team did not act as a team until after the end of the site visit. The intensive discussion on the job profile and the SAR will serve to transform the loose group into a team that can start the site visits as a team.

The assessment protocol

The expert team assesses the quality of the program. The team will already have discussed several aspects during the preliminary meeting. The SAR will already have provided detailed information. During the site visit, the team will be looking for evidence with the following questions in mind:

- Are the expected learning outcomes clearly formulated?
- How are these translated into the curriculum?
- Do the exams reflect the content of the program and courses?
- Have graduates really acquired the expected knowledge, skills and attitudes?

Of course, the SAR is the basic source of information and should provide the basic information to the team. But other sources should also be used:

- The interviews
- The list of the literature used
- The final graduation project
- Assessment and examination papers
- Course descriptions and readers

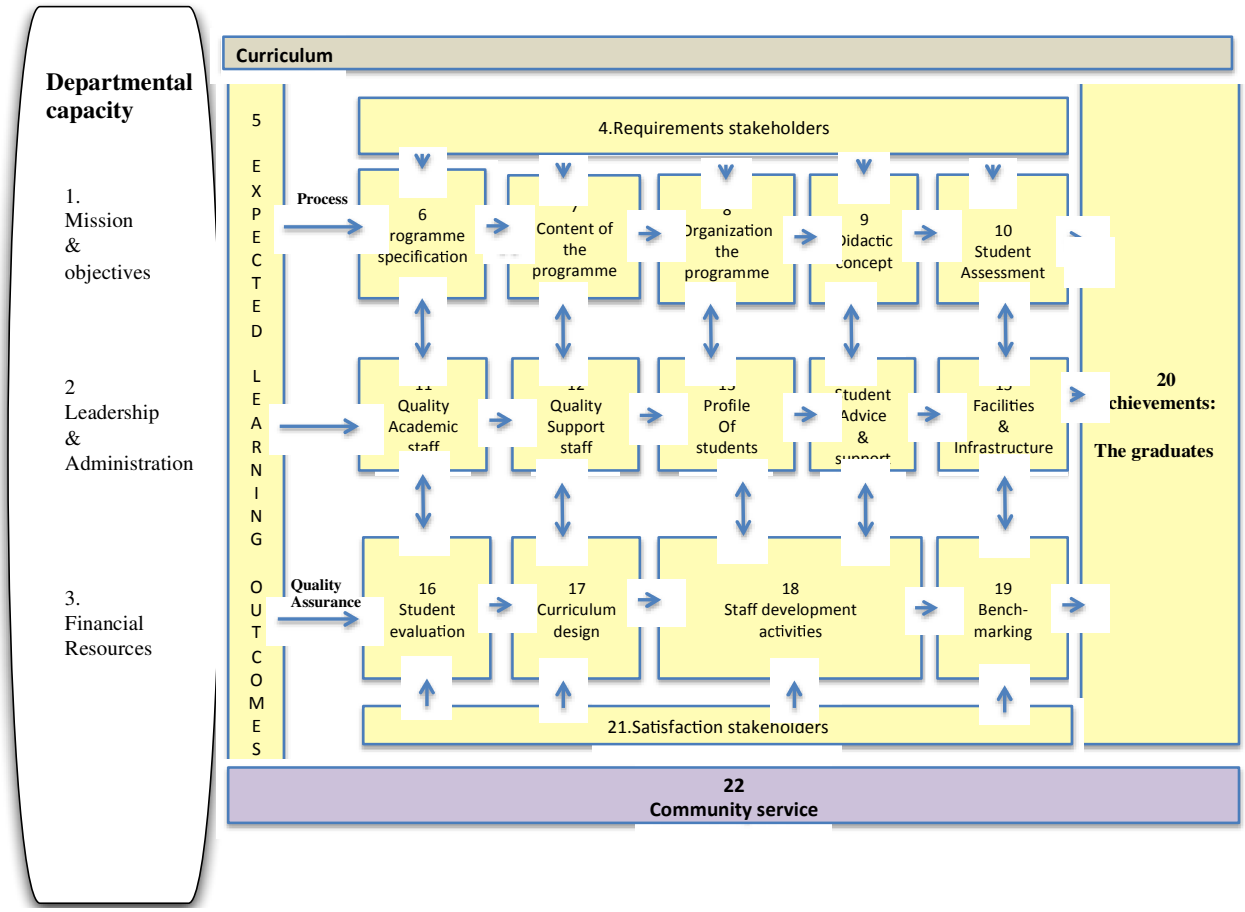
This is why it will be necessary to reserve time in the visit program for studying these materials.

During the assessment, the expert team has to assess the following criteria

- Departmental capacity
- Requirements of stakeholders
- Expected learning outcomes
- Program content
- Program specification or description
- Program organisation
- Didactic concept/teaching/learning strategy
- Student assessment
- Quality of academic staff
- Quality of the support staff
- Student profile
- Student advice/support
- Facilities & infrastructure
- Student evaluation
- Curriculum design & evaluation
- Staff development activities
- Benchmarking
- Achievements /graduates
- Satisfaction stakeholders

The expert team will use the same analysis model for a program as has been used by the department to conduct the self-assessment (see figure 11)

Figure 11: Analysis model for the quality of the program



7.2.3 The site visit program

The chairperson of the team will confirm the program for the site visit in consultation with the department according to a given format (see table 13). Before hand, appointments will have been made with whatever staff members and students the team would like to talk to. The interviews start with a discussion involving the *writers of the self-assessment report.* In this interview, the team can ask for clarification of any obscurities and explanation of any topics that are not totally clear. The *interviews with the students* are purposely planned to take place before the interviews with the staff members. The students are a very rich source of information, but the information needs to be checked and tested against the ideas of the staff members. Student interviews are important to get an insight into the study load, the didactic qualifications of the staff, the coherency of the program, to find out if they are acquainted with the learning outcomes/objectives, the organisation of the curricula and the facilities. These student interviews should be held in the absence of staff members, so that they can speak freely. The size of the student groups is ideally about ten each time. The composition of the student panels requires special attention. It is important that the group is as far as possible representative of the whole student population in that field, i.e. that it not only includes the good students, but also the less gifted ones. It is better not to leave the invitation of students to the faculty or the staff. The best way is to ask a student organisation (if there is any) to nominate the students. If there is no such organisation, the expert team will invite students at random. *Interviews with staff members* will be used for discussion on the content of the curriculum, the goals and objectives/expected learning outcomes. "Why and how did you choose this program?". Other topics to be discussed include the examinations, the final paper (if any), field attachment etc. Other interviews will be held with *members* of *a curriculum committee* and with *members of the committee responsible for examinations.* During the interview with the curriculum committee, the question of how the curriculum is kept up to date will be discussed as will the question on how innovations are planned and realised, etc. The interview with the examination committee must clearly show how the quality of the examinations and degrees is assured.

In the program time is allocated for looking at the facilities: Lecture halls, working group rooms, laboratories, practical rooms, libraries, etc.

Table 13: Draft program for a site visit

Time	Activity
15:00 on the day before the official visit	Team members meet in the hotel for information about their task and discussion on: • The SAR • Specific questions • The program
18:00	Reception by the head of the institution and other officials; dinner
Day 1 **9:00 - 17:00**	Interviews with: • the writers of the self-assessment report • students • staff members • curriculum committee/examination committee • student advisers
19:00-20:00 **20:00**	Dinner for the expert team Short meeting for discussion on the findings of the day and for setting the program for the next day
Day 2 **9:00 - 11:00**	Interviews with the department board Additional interviews, if needed Visit to facilities
11:00 - 12:00	Meeting with the management of the institution
12:00 - 13:00	Lunch for the expert team
13:00 - 16:00	Formulation of the findings
16:00 - 16:30	Feedback to the faculty board

An important question is: "Should a team attend lectures?" The quality of education depends foremost on the interaction between staff and students. It is logical that the experts should attend lectures, tutorials and seminar or research groups. However, given the short time for the site visit it is quite impossible to do so. To get an impression of how things are going in the lecture halls, a team can agree to walk into a lecture hall "in action" to feel the atmosphere. However, it must be stressed that it is not a responsibility of the team to assess an individual staff member.

7.2.4 Formulating the findings

The afternoon of the second day is used for drawing up the findings. There are about 3.5 hours available for this difficult task. The best method is to start with completion of the checklist (see appendix 3) by each member individually. The team members are requested to give a mark between 1 and 7 for the various aspects. To have some idea of the value of the figures, bear the following ideas in mind:

- *Score 1-2 when you believe this aspect should be considered as critical. The institution has to take action. Something has to be done and cannot wait.*
- *Score 3 when you believe this aspect is unsatisfactory. It must be improved, but does not directly threaten the quality .*
- *Score 4 when you believe the situation is satisfactory. The TI may be satisfied, but there is no reason to be proud.*
- *Score 5 when you believe this topic can be assessed as more than satisfactory, but not excellent.*
- *Score 6 when you believe this topic can be assessed as more than satisfactory and can be seen as an example of good practice.*
- *Score 7 when you believe this topic can be assessed as excellent. The institutions can be proud of it and it is certainly a strong point.*

The overall assessment of the different aspects is based on the scores given to each sub-aspect in the category. But, of course not all sub-aspects have the same weight. This means that you cannot calculate mathematically an average. You have to balance the various sub-aspects and to judge the weighting of each of them. Positive aspects may compensate for some negative ones. Summarizing the outcomes per category is not a mathematical enterprise, nor ticking boxes. One has to balance and weight the importance of each criterion. The same counts for the overall judgment of the program. One cannot calculate the average of the categories, but weight the importance.

Summarizing the outcomes for each of the 22 categories shows the strengths and weakness of the institution (See table 14).

Table 14: summary quality aspects program analysis

no		1	2	3	4	5	6	7
1	Mission & objectives							
2	Leadership& administration							
3	Financial resources							
4	Requirements stakeholders							
5	Expected learning outcomes							
6	Programme specifications							
7	Content of the programme							
8	Organization of the program							
9	Didactic concept							
10	Student assessment							
11	Quality teaching staff							
12	Quality support Staff							
13	Profile of students							
14	Student advice & support							
15	Facilities & Infrastructure							
16	Student evaluation							
17	Curriculum design							
18	Staff development activities							
19	Benchmarking							
20	Achievements							
21	Satisfaction stakeholders							
22	Community service							
	Overall judgment							

After completing the list, the resting time will be used to draw up an inventory of the topics to be treated in the oral presentation.

7.2.5 The oral presentation

The oral presentation to the management of the institution at the end of the visit holds a special position in the process. Sometimes, findings and conclusions are not really suitable for the report, but the team would like to make a critical statement about them. In that case, the oral presentation can be used to formulate strongly worded recommendations. In order to do justice to this principle, the oral presentation is not public; the team reports to the management board. The chairperson should stress that this is an interim report; some conclusions may change during the final discussion on the report. It is advisable not only to mention weaknesses, but also strengths. The chairperson does not tell the advise about accreditation.

7.2.6 The expert team's report

After the site visit, the chairperson and secretary will write a first draft of the report, using the completed checklists and the minutes of the oral presentation.
Table 12 gives an outline of the content of the assessment report.

Table 15: Content of an assessment report of a program

Introduction • *Composition of the team* • *Short description of the university and the department responsible for the curriculum* • *Short description of the program (in such a way that an outsider has a good idea about the content of the program)*
Chapter 1: The department *1.1. Mission and objectives* *1.2 leadership and administration* *1.3 Financial resources*
Chapter 2: Requirements stakeholders and expected learning outcomes
Chapter 3: The process *2.1 Program specification* *2.2 Program content* *2.3. Program organisation* *2.4 Didactic concept* *2.5 Student assessment*
Chapter 4: The input

4.1 quality of the staff *4.2 Quality of the support staff* *4.3. The students* *4.4. Student advice/support* *4.5 Facilities and infrastructure*
Chapter 5: Quality assurance *5.1 Student evaluation* *5.2 Curriculum design & evaluation* *5.3. Staff development activities* *5.4. Benchmarking*
Chapter 6: achievements and graduates *6.1 Achieved outcomes (graduates)/graduate profile* *6.2. Pass rate and dropout rate* *6.3. Average time to degree* *6.4 Employability*
Chapter 7: Stakeholder satisfaction *7.1. Opinion - Students* *7.2. Opinion - Alumni (graduates)* *7.3. Opinion - Labour market* *7.4 Opinion - Society*
8. Community service
Chapter 9: Strengths-weaknesses analysis *9.1 Summary of strengths* *9.2 Summary of weaknesses* *9.3 Summary recommendations*

For each topic the following format will be followed:

- What is said in the SAR about this topics
- What are the findings of the expert team?
- Conclusion
- Recommendations

Making recommendations, the expert team must keep in mind:

- To summarize the recommendations at the end
- Prioritize the recommendations as far as possible
- Ask it self if it is a realistic recommendation
- The expert team must make clear for whom the recommendations is made
- The team should not ride hobbyhorses
- If there are many recommendations, the team has to ask it self if they all are important

The 1st draft of the report will be discussed with the team members. The 2nd draft will be sent to the institution for comment. The comments should concern only factual errors and inaccuracies, not the differences in opinion. The audit team will decide what to do with the comments.

7.3 NACTE and the Program Accreditation

7.3.1 programme assessment without site visit

As mentioned in section 3, NACTE might organise a nation wide program assessment in a certain disciple. An expert team will look at the SAR's en advise on validation or no validation. De expert team will report its advises to the Sector Board concerned and the Sector Board will advise the Council. The Council will take the decision: yes/no validation.

7.3.2 programme assessment with site visit

The final report(s) of the expert team will be sent to the Sector Board concerned. The expert team gives its advise about accreditation or not accreditation in a side letter. The Sector Board will check if the Program Accreditation has been done according the rules and see if the report contains all information needed. If the assessment report is accepted it will be sent to the Council. The Council, normally, will follow the advise of the expert team. The decision might be:

Conditional Accreditation:

The Council grants conditional accreditation to a program where the Council is of the opinion that

there are certain requirements to be fulfilled by the department. The term, in which the condition has to be fulfilled, is given. NACTE will check if the conditions are fulfilled. Where the department fails to fulfill the requirements within the time, then the Council may:

- Cancel the conditional Accreditation granted to the program; or
- After being satisfied that, there was reasonable cause for failure to comply, extend the time for conditional Accreditation to such other time, as it may be determined.

Full Accreditation:

The Council grants full accreditation to the program, which meet adequately the accreditation requirements. Accreditation is valid for 5 years. report to NACTE

7.3.3. Appeal mechanism

If the institution disagrees with the way the assessment is done, disagree with the findings of the external team or the decision of the Council, it may contact NACTE. NACTE will install an independent committee that will investigate the complaints. The verdict of the independent committee is binding both for NACTE as the institution.

7.4 Concluding Remarks

The guidelines given in this chapter are intended to help the expert team, not to make external quality assessment a bureaucratic process. Each expert team will tend to look for its own approach; every institution is different. The guidelines should not be a straitjacket. However, it should take very weighty arguments to deviate from the process described. The approach given here will save the experts time and offer the department a fair assessment.

Appendix 1: Checklist Internal Quality Assurance

		1	2	3	4	5	6	7
QA ORGANIZATION								
1	*The institution has a "quality management plan" containing clear and specific policies and procedures that provide a framework for the quality assurance activities. The institution commits expressively and clearly to disseminating the culture of quality among all its members.*							
2	*The institution has a Quality Assurance Committee to ensure quality policies and objectives are set, implemented and evaluated*							
3	*The institution has a center/ unit/ department linked to the higher management of the institution with the task is to execute, coordinate and monitor the quality assurance.* *The size of the quality center/ unit/ department suits the size of the institution*							
4	*Student progress is systematically recorded and monitored, feed back to students and corrective actions are made where necessary.*							
	Overall judgement QA Organisation							
MONITORING								
5	*An institution has a structured monitoring system to collect information about the success rates and the drop out among the students*							
6	*The institution has a structured method to obtain feedback from all stakeholders for the measurement of their satisfaction. The monitoring system includes at least:* • *Structural feedback from the labour market* • *Structural feedback from alumni*							
7	*An institution has a structured monitoring system to collect information on the quality of its core activities. This includes monitoring the research out put (number of publications), the number of grants of the staff etc.* (if applicable)							
	Overall judgement Monitoring							
EVALUATION INSTRUMENTS								
8	*The institution makes use of student evaluation on a regular base. The outcomes of the student evaluation are used for quality improvement. The institution provides the students with feedback what is done with the outcomes*							
9	*The institution has specific mechanisms approved by NACTE to design, approve, monitor and review the programs within the frame of quality assurance system in the institution.*							
10	*The institution, with a task in research has a system for regular review of research outcomes.*							
11	*The institution has a system for regular review of the community outreach.*							
	Overall judgment Evaluation Instruments							
SPECIAL QA PROCESSES								
12	• *An institution has clear procedures to assure the assessment of students.* • *Students are assessed on the basis of published criteria, regulations and procedures that are applied consistently.* • *There are clear procedures to assure the quality of the examinations.* • *There is an appeal procedure.*							

		1	2	3	4	5	6	7
13	*An institution has means to satisfy itself that its staff are qualified and competent to conduct the core activities of the institution: education, (research) and the community outreach:* • *Adequate staff appointment procedures* • *An adequate staff appraisal system* • *Staff development activities*							
14	*An institution has clear procedures to ensure that the quality of its facilities needed for student learning are adequate and appropriate for each program offered:* • *Adequate checks on the computer facilities* • *Adequate checks on the library* • *Adequate checks on the laboratories*							
15	*An institution has clear procedures to assure the quality of the student support and student advice.*							

	In establishing a learning environment to support the achievement of quality student learning, teachers must do everything in their power to provide not only a physical and material environment that is supportive of learning and is appropriate to the activities involved, but also a social or psychological environment.							
	Overall judgment Special QA processes							
SPECIFIC QA-INSTRUMENTS								
16	*An institution regularly (but at least once every 5 years), conducts a self-assessment of its core activities and of the institution as a whole to learn about its strengths and weaknesses. This self-assessment must lead to a quality plan.*							
17	*A self-assessment might be part of an External Quality Assessment (EQA) or accreditation process where the self-assessment report acts as input for the external review team. If the self-assessment is not connected to the EQA, the institution will be expected to organise an audit itself based on the self-assessment report.*							
18	*The HEI should have an information system that documents its The institution should have an information system that documents its performance on the key performance indicators approved in the quality improvement plan. Updated, fair and objective information on programs should be published taken from the outcomes of its information system or any other comparative studies.*							
19	*An institution has a QA handbook that documents all regulations, processes and procedures concerning Quality Assurance. This handbook is public and known to all the people concerned.*							
	Overall judgment Specific QA instruments							
FOLLOW UP								
20	*There is clear evidence that the institution used the information from the monitoring system and the outcomes of evaluations to improve the quality.*							
	Overall judgment IQA system							

Appendix 2: Checklist Quality Aspects of an Institution

		1	2	3	4	5	6	7
1.	*The institution has a clear idea about the relevant demands and needs of all stakeholders*							
2.1	*The institution has a statement of vision and mission that defines the institution, its educational purposes, its student constituency, and its place in the technical education and training community.*							
2.2	*The institution demonstrates honesty and truthfulness in presentations to its constituencies and the public; in pursuit of truth and the dissemination of knowledge; in its treatment of and respect for administration, academic staff, other staff, and students; in the management of its affairs and in relationships with NACTE and other external agencies.*							
	Overall judgment criteria 2.1 – 2.2							
3	• *The institution plans constantly to achieve its mission and objectives and evaluate the extent, way and quality of achieving them. Results of the annual assessment are used in the processes of continuous comprehensive planning and assessment. It also works on self-analysis and criticism and reviews its objectives, policies and procedures according to that.* • *The institution ensures the participation of all councils, committees, administrations, faculty members and students in planning and assessment.* • *The institution periodically reviews the assessment processes and planning activities to ensure their effectiveness.*							
	Overall judgment							
4.1	*The institution has a Governing Board or Advisory Board or Council responsible for the quality and integrity of the institution.*							
4.2	*The Institution has effective Administration and Governance.*							
	Overall judgment criteria 4.1 – 4.2							
5	• *The institution takes care of high-quality faculty staff and support staff by clearly defining their responsibility, and by evaluating their performance on a regular basis by means of an adequate staff appraisal system* • *The institution provides for:* - *a system of staff development to enhance the knowledge and skills of faculty and supporting staff in conducting activities that have a direct influence on the quality of teaching-learning. This should include the formulation of a concrete personnel development plan;* - *evaluation of the effectiveness of the provided training* - *compilation of records of education, experience, training, and other essential qualifications required of lecturers and supporting staff.* • *The institution establishes an activity plan and evaluates activities to encourage students, faculty members and other personnel to be conscientious in their thoughts and speech.* • *The institution enhances the professional ethics of its students, faculty members and other personnel*							
	Overall judgment							
6	*The provision of financial resources to meet academic requirements is effectively planned and reviewed.*							
7	*The provision of physical resources to meet academic requirements is effectively planned and reviewed.*							

		1	2	3	4	5	6	7
8.1	• *The programs at offer in the institution:* ✓ *are meeting the expectations of the stakeholders* ✓ *are meeting the current competence requirements* ✓ *have clearly formulated expected learning outcomes* ✓ *are coherent* ✓ *are up-to-date* • *Stakeholders have appropriate opportunities to be involved in review of program outcomes.*							
	Overall judgment							
8.2	• *The institution has well functioning student assessment systems through all programs at offer and clear rules to assure the quality of the assessments.* • *The institution I has a clear policy to promote that the examinations are objective, equivalent and trustworthy* • *The institution take care of the consistency of the examinations; consistency between the programs and consistency in time* • *The institution has a policy to promote a variety of assessments methods* • *The institution takes care that examination committee's function adequately and performs the statutory task.* • *Students have an opportunity to appeal the results of assessment in a manner that is fair and equitable.*							
	Overall judgment							
8.3	*Field attachment/workplace training components are effective and integrated into curricula*							
8.4	*The institution fosters good teaching-learning process*							
8.5	• *Appropriately qualified staff are employed to enable quality provision of programmes.* • *The institution actively encourages the development of all staff.* *Overall judgment*							
8.6	• *Prospective and continuing students have effective guidance to assist them in making informed decisions on their programme of study* • *Entry and selection criteria are appropriate for the level of each programme, are well publicised, and are applied consistently.* • *The institution has implemented effective credit transfer policies and procedures that accord with the principles of NACTE qualifications framework.* • *The institution makes appropriate provision for the recognition of prior learning and current competency for its enrolled students.*							
	Overall judgment							
8.7	*The provision of physical resources to meet academic requirements is effectively planned and reviewed.*							
	Overall judgment criteria 8.1-8.7							
9	*The institution has clear guidelines for consultancy and community outreach*							
10	*The institution uses the instrument of benchmarking for analyzing the quality of its core activities and its management*							
11	*The institution has an efficient internal quality assurance system*							
12	*An institution has the means/opportunity to check whether the achievements are in line with the expected outcomes*							
13	*An institution has a structured method for obtaining feedback from the stakeholders*							

Appendix 3: Checklist Quality Aspects of a program

		1	2	3	4	5	6	7
1.	• *The mission of the department is consistent with the mission of the institution. It is applied based on specific objectives and requirements associated with the nature of specialization. It should be clearly stated and be influential in guiding, planning and implementing the program.* • *The mission of the department is the guide for the processes of planning and decision-making. It is carefully employed while preparing and reviewing the academic program.* • *The program and its objectives are periodically reviewed in light of performance assessment and the interaction of implementers of programs with their surrounding.*							
	Overall judgment							
2.1	• *The department plans to achieve its mission and objectives and assess the extent, way and quality of achieving its mission and objectives. Results of the annual assessment are used in the processes of continuous comprehensive planning and assessment.* • *The department ensures the participation of all councils, committees, administrations, faculty members and students in planning and assessment.* • *The department periodically reviews the assessment processes and planning activities to ensure their effectiveness.*							
2.2	*The head of the department decides on the program's priorities, prepares development plans, supports administrators and faculty members and the environment of teaching and learning as to achieve the mission and objectives of the program. There is also clear specification of the responsibility of the academic program*							
2.3	*The council of the department is responsible in the first place of the quality and credibility of implementing the program. It gives priority for the effective development of the program as to ensure the interests of the students and community it serves.*							
	Overall judgment criterion 2							
3.1	*The process of financial planning is directed to achieve the objectives and priorities of the program*							
3.2	• *Financial affairs are effectively managed as to ensure balance between the required flexibility in units and the central accountability and responsibility.* • *The budget and accounts of the department are managed by a specialized financial manager.*							
	Overall judgment criterion 3							
4	*The department, responsible for the program has a clear idea about the relevant demands and needs of all stakeholders, based on situation analysis*							
5	• *The program/curriculum has clearly formulated learning outcomes (knowledge, skills, attitude) reflecting the relevant demands and needs of all stakeholders, especially the labour market* • *The expected learning outcomes are competence based* • *The program has formulated learning outcomes on entrepreneurial skills* • *The program has a learning outcome, enabling the student to get a gender sensitive attitude*							
	Overall judgment							
6.	*The department publish, for each program they offer, a program specification/description which gives the intended learning outcomes of the program in terms of:* • *knowledge and understanding that the students will have acquired upon completion of the program* • *cognitive skills, such as an understanding of methodologies or ability in critical analysis* • *subject specific skills, such as laboratory skills, clinical skills, etc.*							
	Overall judgment							

		1	2	3	4	5	6	7
7.	• *The program shows a balance between specialist contents and general knowledge and skills.* • *The program takes into account and reflects the vision, mission, aims and objectives of the institution.* • *The objectives of the program and expected learning outcomes are explicit and are known to staff and students.* • *The program shows the expected learning outcomes of the graduate. Each course is clearly designed to show the expected learning outcomes of the course. To obtain this, a curriculum map is constructed. A program map is available.* • *The program shows evidence of attention to develop entrepreneurial skills* • *The program shows evidence of attention to develop a gender sensitive attitude*							
	Overall judgment							
8	• *The program is designed in such a way that the subject matter is integrated and also strengthens other courses in the program* • *The program shows range, depth and coherence of the courses* • *The program is organised in a modular way*							
	Overall judgment							

9	• *The faculty has a clear didactic concept*
	• *The didactic concept is student oriented. Hence, the conception of teaching is the facilitation of learning.*
	• *In promoting responsibility in learning, teachers should:*
	  • *create a teaching-learning environment that enables individuals to participate responsibly in the learning process*
	  • *provide curricula that are flexible and enable learners to make meaningful choices in terms of subject content, program routes, approaches to assessment and modes and duration of study*							

	Overall judgment							
10	• *The system of assessments and examination provides an effective indication whether the students have reached the expected learning outcomes of the program or its components.* • *The tests, evaluations and examinations are in line with the content and learning objectives of the various parts of the program.* • *The program provides individual students with adequate feedback concerning the extent to which the various learning objectives have been achieved.* • *The program ensures adequate consistency of the student assessments.* • *The assessment is adequately organized (as regards e.g. announcement of the results, opportunities to re-sit tests or examinations, compensation arrangements etc.).* • *The examination committee functions adequately and performs its statutory tasks.*							
	Overall judgment							

See next page

		1	2	3	4	5	6	7
11	• *The staff is competent and qualified* • *The size of the teaching staff is sufficient to deliver the curriculum and suitable in terms of the mix of qualifications, experience, aptitudes, age, etc.* • *Recruitment and promotion of staff are based on merit system, which includes teaching, (research) and services* • *Duties allocated are appropriate to qualifications, experience, and aptitude.* • *Time management and incentive system are directed to support quality of teaching and learning* • *There are provisions for review, consultation, and redeployment.* • *Termination, retirement and social benefits are planned and well implemented.* • *There is a well-planned staff appraisal system based on fair and objective measures in the spirit of enhancement which are carried out regularly*							
	Overall judgment							
12	*There is adequate support in term of staffing at the libraries, laboratories, administration and student services.*							
	• *There are clearly formulated admission criteria for the programs*							

13	• *If there is selection, the procedure and criteria are clear, adequate and transparent* • *The planned study load is in line with the real study load*							
	Overall judgment							
14	• *Student progress is systematically recorded and monitored, feed back to students and corrective actions are made where necessary.* • *In establishing a learning environment to support the achievement of quality student learning, teachers do all in their power to provide not only a physical and material environment which is supportive of learning and which is appropriate for the activities involved, but also a social or psychological one.*							
	Overall judgment							
15	• *The physical resources to deliver the program, including equipment, materials and information technology are sufficient* • *Equipment is up-to-date, readily available and effectively deployed* • *Information technology systems are set up or upgraded* • *The computer centre continuously provides a highly accessible computer and network infrastructure that enables the campus community to fully exploit information technology for teaching, research and development, services and administration.*							
	Overall judgment							
16	• *The department uses student evaluation on a regular base* • *The outcomes of the student evaluation are used for quality improvement* • *The department provides the students with feedback on what is done with the outcomes of the evaluation.*							
	Overall judgment							
17	• *The curriculum design (or redesign) is done in a structured way, involving all stakeholders, especially employers* • *There is a well functioning program or curriculum committee* • *The curriculum is regularly evaluated* • *Revision of the curriculum takes place at reasonable time periods* • *Quality assurance of the curriculum is adequate*							
	Overall judgment							
18	• *Staff development needs are systematically identified, in relation to individual aspirations, the curriculum and institutional requirements.* • *Teaching and supporting staff undertake appropriate staff development programs related to identified needs*							
	Overall judgment							

		1	*2*	*3*	*4*	*5*	*6*	*7*
19	*The faculty/department uses the instrument of benchmarking for analysing the quality of its program and its performance*							
20.1	• *The final qualifications achieved by the graduates are in line with the formulated NTA level* • *The content and level of the graduation projects are in line with the NTA degree and the NQF.* • *Graduates are able to operate adequately in the field for which they have been trained*							
	Overall judgment							
20.2	• *The department responsible for the program has set targets for the student success rate (i.e number of graduates per year) and the duration of studies comparable with those for other relevant programs.* • *The actual student success rate is in line with these targets.*							
	Overall judgment							
20.3	*The average time for graduation is in line with the planned time for finishing the program.*							
20.4	*The employment/unemployment rate of the graduate are in line with the target set by the faculty.*							
	Overall judgment criteria 20.1 – 20. 4							
21	*The department must have a structured method to obtain feedback from all stakeholders for the measurement of their satisfaction.*							
22	*The department has clear guidelines for consultancy and community outreach*							
	Overall judgment criteria 1-22							

Appendix 4: Qualifications standards as formulated by NACTE

OCCUPATIONAL PROFILE (NTA 4)

CATEGORY	DUTIES	TASKS/Workplace skills						
ACCOUNTING	A RECORD ACCOUNTING DATA	A1 Record daily purchases	A2 Record returns outward	A3 Record daily sales	A4 Record returns inward	A5 Record receipts and payments	A6 Keep registers	A7 Use proper codes
	B PROCESS PAYMENTS	B1 Prepare purchase requisitions	B2 Record purchase orders	B3 Match purchase orders & GRNs	B4 Write payment vouchers	B5 Issue cheques	B6 Handle payment enquires	
	C PROCESS RECEIPTS	C1 Prepare billing requests	C2 Raise invoices	C3 Receive cash & cheques	C4 Raise receipts	C5 Bank receipts		
COMMUNICATION	D APPLY CUSTOMER CARE	D1 Handle customers enquires	D2 Demonstrate listening skills	D3 Demonstrate mastery of English language	D4 Arrange appointments	D6 Provide feedback	D7 Guide clients	
ICT	E OPERATE ICT INSTRUMENTS	E1 Use ICT related hardware	E2 Use operating software	E3 Use word processors	E4 Enter data into spread sheets	E5 Capture data using accounting packages	E6 Print reports	E7 Use e-mail, internet and fax machines
GENERAL DUTIES	F HANDLE DOCUMENTS	F1 Classify documents	F2 File documents	F3 Maintain record movement register	F4 Retrieve documents	F5 Handle incoming and outgoing mails	F6 Maintain safety and security of documents	F7 Provide technical information

Name of the Qualification: Basic Technician Certificate in Accountancy

Purpose of Qualification: This qualification is intended for a person who will record accounting data, process receipts/payments using book-keeping and ICT skills, handle documents and provide customer care on day to day basis.

Competence Level Descriptor: The holder of the qualification will be able to apply skills and knowledge at routine level.

Total Credits at this Level: **120**

Number of Credits from Lower level: 0

PRINCIPAL OUTCOMES, CREDIT VALUES AND ASSESSMENT CRITERIA

Principal Learning Outcomes	Credit Value	Assessment Criteria
I. Apply bookkeeping and arithmetic skills to record accounting data and process receipts and payments	**60**	(a) Arithmetic principles are applied in handling accounting data; (b) Bookkeeping principles are applied in recording accounting data; and (c) Relevant Regulations and procedures are used in processing receipts and payments.
2. Apply communication and customer care skills to handle clients	**30**	(a) Communication skills are applied in carrying out daily operations; (b) English language skills are applied in daily operations; and (c) Customer care techniques are used in handling internal and external customers. (d)

3. Operate ICT instruments to capture data and communicate information	**16**	(a) ICT knowledge and skills are used in operating computers and other office equipments; (b) Word processor, spreadsheets and accounting packages are applied to capture data; and (c) ICT tools are applied in communicating information.
4. Apply record keeping skills to handle documents	**14**	(a) Information handling techniques are demonstrated in carrying out daily operations; (b) Record keeping skills and procedures are applied to classify, store and retrieve documents; (c) Record keeping procedures are used to maintain records movement register; and (d) Safety and security procedures are observed in handling documents.

Essential Knowledge
Customer care and personal service, Applicable regulations and policies, English language, Commerce Arithmetic, Basic computer application.
Essential skills
Active listening and learning, reading, comprehension, speaking, writing, service orientation, arithmetic, coordination, time management.
Essential tools
Computers, calculating devices, communication devices word processors and spreadsheets, accounting software, financial policies and regulations, Taxation laws and regulations, Accounting Standards

Appendix 5: Independence of team members

The expert teams are expected to assess the quality of the institution or program in an authoritative, critical and independent way. Therefore, the teams must conform to high standards of quality. Safeguards are necessary to make sure that these standards can be met and to demonstrate that they are actually fulfilled.
The team and the team members have to act independently. The independence of the team and its members means that their judgement is not influenced by the institution or program under review or by any other interested parties. An important safeguard in this respect is the disclosure procedure, which means that any potential conflict of interest, bias or undue influence is reported and undesirable effects are minimised through clear agreements. This is not only aimed at finding and preventing *actual* undesirable influences, but also to detect what could give *the impression* of undue influence. A number of evidently undesirable situations (such as financial interests) are explicitly forbidden. The rules of conduct (section 3) describe how to deal with such situations.

General safeguards
General safeguards regarding the independence of panels are:
- team members who are (or were) committed to institution or programs under review, do not participate in the assessment thereof
- the team as a whole is responsible for the definitive assessments
- the definitive assessments are presented in draft to the participating institutes for factual correction and to check whether adequate use was made of all relevant information
- there is a procedure for appeal against the assessments.

Specific measures
- The faculty/department under review must report any potential conflict of interest, bias or undue influence regarding candidates for panels.

- The members of the expert team will sign a letter of independence. The members commit themselves to maintain an independent position during the assessment and not to allow undue influence to affect their judgement. Completing and signing the independence form is a requirement for installation as a team member
- Potential conflicts or tensions that are reported in the independence form (or by other means) are discussed in the committee and an assessment is made to what extent these could unduly affect the judgement (or appear to do so). Measures are then taken to avoid undesirable effects. Such measures range from completely or partially excluding an expert from the assessment, to carefully counterbalancing or otherwise neutralising undesirable effects. The report states how potential tensions were detected and how these were dealt with in order to warrant the independence of the judgement.
- the team members must reconfirm or update their declaration during the final committee meeting and state that they have actually fulfilled the requirements.

Rules of conduct for the expert team
- A team member must avoid any influence in the assessment from persons or parties committed to the programme or institute under review, or from other interested parties.
- A team member must maintain sufficient distance from personal ideas, convictions or preferences about the area under review.
- A team member uses the following information for the assessment:
  - the self study and annexed documentation provided by the faculty/department
  - any additional data provided at the request of the expert team
  - the interviews held in the course of the review
  - observations made during site visits.
- The assessment made by a team member must conform to quality standards that
  - prevail in the scientific world in general and in the relevant academic disciplines in particular. Relevant aspects in this respect are:
    - expertise and professionalism
    - independence and objectivity
    - carefulness and consistency
    - transparency and absence of bias.

- A team member does not use information gathered in the course of the review for personal purposes. Confidential information is treated appropriately.
- A team member who is (or was) closely involved with the institute or program under review, does not participate in that particular assessment or in the interviews concerned.
- A team member does not accept presents or remunerations from the program or institute under review.
- A team member does not have financial or commercial stakes in the programme or institute under review, nor in any associated companies or organisations.

Independence and Disclosure form for members of the expert teams

1 Conflict of interest assessment

Do you perceive any risk of conflict of interest or serious appearance of such conflict in your participation in the external assessment?

( ) No ( ) Yes

If the answer is yes, please provide a brief description and analysis of the potential for conflict.

2. Declaration about financial interests

"I declare that I have no financial links with any of the persons, programmes or institutes under review and that I have not accepted and will not accept any financial or other remunerations from outside sources for my participation in the external assessment. I declare that I will report any offers of such remuneration to the chairman of the review committee."

3. Declaration of independence

"I have read the principles and rules applying to this assessment and I declare that I will follow these to the best of my ability and that I ill judge without influence from
the institute, program or other stakeholders, and without bias, personal preference or personal benefit."

4. Declaration about confidentiality

"I declare that I will keep all information, gathered during the assessment will treat confidentially."

Name: Date: ..... Signature: .....

Note: If your situation with respect to potential conflict of interest changes in the course of the review, you are obligated to submit an updated disclosure statement. Information provided in this disclosure form will be restricted to authorised persons.

Abbreviations

CBE	
CBE	College of Business Education
CV	Curriculum Vitae
ELO	Expected learning outcome
ENQA	European Association for Quality Assurance
EQA	External Quality Assessment
ICT	Information & Computer Technology
IQA	Internal Quality Assurance
IUCEA	Inter University Council East Africa
MSM	Maastricht School of Management
NACTE	National Council for Technical Education
NGQ	National Qualification Framework
NICHE	Netherlands Initiative for Capacity Development in Higher Education
NTA	National Technical Awards
PI	Performance indicators
QA	Quality assurance
QA	Quality Assurance
QC	Quality control
SAR	Self-Assessment Report
SWOT	Strengths, Weaknesses, Opportunities and Threads
TI	Technical Institution
TVET	Vocational Education and Training Authority
ZIToD	Zanzibar Institute for Tourism Development