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Frank Niedermeier

Designing Effective Quality Management Systems in Higher Education Institutions

Training on Internal Quality Assurance Series | Module 1

Solveig Randhahn and Frank Niedermeier (Eds.)

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His main areas of work and research are higher education and student research, evaluation of teaching and learning, methods of empirical social research and quality assurance and enhancement in higher education.

List of Abbreviations

ABET	American Board of Engineering and Training
AQAFHE	ASEAN Quality Assurance Framework in Higher Education
AQAN	ASEAN Quality Assurance Network
AQRF	ASEAN Qualifications Reference Framework
ASEAN	Association of Southeast Asian Nations
AUN	ASEAN University Network
AUN-QA	ASEAN University Network – Quality Assurance
CAMES	African and Malagasy Council for Higher Education
CETQA	Center for Educational Testing and Quality Assessment, VNU-HCM
CIPO	Context, Inputs, Process and Output
CQAAE	Centre for Quality Assurance and Academic Excellence, MMU
CQO	Chief Quality Officer
DIES	Dialogue on Innovative Higher Education Strategies
EFQM	European Foundation for Quality Management
EHEA	European Higher Education Area
EQA	External Quality Assurance
EQAR	European Quality Assurance Register for Higher Education
ESG	Standards and Guidelines for Quality Assurance in the EHEA
EUA	European University Association
HE	Higher Education

HEI	Higher Education Institution
IMA	Internal Maintenance Audit
IQA	Internal Quality Assurance
ISO	International Organization for Standardization
IT	Information Technology
IUCEA	Inter-University Council for East Africa
MMU	Multimedia University Malaysia
NPM	New Public Management
OLP	Online Learning Platform
PI	Performance Indicator
QA	Quality Assurance
QAF	Quality Assurance Framework
QF	Qualifications Framework
QM	Quality Management
QMS	Quality Management System
PAP	Project Action Plan
SCL	Student Centred Learning
SEAMEO RIHED	Southeast Asian Ministers of Education Organization Regional Centre for Higher Education and Development
SPC	Statistical Process Control
TQM	Total Quality Management
UNESCO	United Nations Educational, Scientific and Cultural Organization
VNU-HCM	Vietnam National University Ho Chi Minh City

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Preface

Introduction to the Course Book Series

Prof. Dr. Philipp Pohlenz & Dr. Solveig Randhahn

Dear Readers,

Higher education institutions worldwide are undergoing massive changes. These result in increased public expectations towards the institutions' provision, new tasks and responsibilities for scholars and administrators, new modes of knowledge production and transfer. Higher education institutions are developing from elite systems, serving the educational needs of only a small proportion of respective age cohorts to mass education systems.

The abundance of individual and organisational change processes require higher education institutions to rethink the quality of their provision in the field of higher education. Does the way in which we design curricula and in which we organise learning processes from enrolment to the final examination still respond to recent developments in learning theory and to the requirements of the labour market? Do we take appropriate account of the diverse expectations of an increasingly heterogeneous target audience? Are the processes of teaching, learning, and examination aligned carefully with each other in a way that allows us to educate the workforce of tomorrow? Do we support our students appropriately in their attempt to develop into competent and critically thinking citizens that are able to act efficiently in a more and more complex and ambiguous world?

Even more significant is the process that changes higher education institutions from state-regulated institutions to independent actors on competitive education markets. The last 30 years have seen a growing number of higher education systems that have changed the relationship between the public authorities (e.g. ministries of education) and the individual institutions. Having been granted with more autonomy and self-responsibility, higher education institutions needed to think more strategically about their strengths and weaknesses. Higher education institutions have changed from classical expert organisations to organisations operating under a more managerial governance paradigm. Here again, we can see the necessity of a systematic approach to quality assurance and quality enhancement policy: The more higher education institutions are constituted as actors on a competitive education market, the more the need to be aware of what their "unique selling point" or their "DNA" is. Many higher education institutions worldwide have responded to these developments by institutionalising quality assurance mechanisms or even by establishing quality assurance units, being exclusively assigned with the respective instruments (e.g. quality assurance offices in charge of educational evaluation).

The present course book series tries to give guidance to higher education institutions and their "quality assurance agents" on their "quality journey". We have collected well-established instruments and methodology from a range of European and international higher education systems. These are supposed to guide you through the many – and sometimes contradictory and conflicting – theories and approaches to quality assurance. We are fully aware that every institution needs to find its own way and approach to quality assurance. However, we base these course books on the experience we have collected in a range of higher education institution contexts throughout diverse international higher education systems. Some of the principles apply to any context, some of them will need to be made applicable to your own situation. The course book series focusses on five thematic fields:

1. **Designing Effective Quality Management Systems in Higher Education Institutions:** the first course book lays the general basis for the training course. It introduces quality concepts, definitions of quality assurance and development and discusses the question why quality management (QM) is an important concept for higher education institutions.

2. **Tools and Procedures for Quality Assurance in Higher Education Institutions:** the second course book deals with the basic knowledge evaluation theories and methodology, particularly in the framework of higher education institutions. Furthermore, the course book deals with empirical social science research methodology as a tool for effective quality assurance. Core elements are the precise conception and systematic conduction of qualitative and quantitative data collection as well as data analysis and interpretation for evaluation purposes.

3. **Quality Assurance of Teaching and Learning in Higher Education Institutions:** the third course book introduces the role of quality managers in communication and information processes of teaching and learning. Participants learn how to support teaching staff with defining a study programme's objectives, its expected learning outcomes and competences. Furthermore, the course book deals with the continuous revision of study programmes and how to write a self-evaluation report at programme level. Finally, it examines the linkage between external and internal quality assurance approaches and how to make best use of both.

4. **Information Management in Higher Education Institutions:** the fourth course book focuses on possibilities and limitations of an information management for higher education institutions. Participants get to know the relevance of (performance) indicators. They learn to reflect them critically and to use them in a responsible way. Based on this, the course book gives an introduction on how to establish a data-based reporting system at higher education institutions for different purposes and stakeholder groups and discusses various challenges to be considered.

5. **Quality Management and its Linkages to Higher Education Management:** the fifth course book completes the training course, summarising the key elements of the previous modules and showing how to close quality loops (which refer to the cyclic quality management logic of plan-do-check-act). It focuses more in detail on the linkage between quality management and decision-making processes and it analyses the functions of involved parties and existing limits of their actions. In doing so, you will get an insight to communication and implementation strategies that are relevant to develop change processes at higher education institutions.

Structure and Use of the Course Books

Each course book starts with an overview referring to the prerequisites and intentions of the module (including the workshop, self-study-phases and online-phases) as well as the expected learning outcomes to be achieved in the module. In the following, the course books are divided into various chapters that go into detail on key issues of the respective thematic fields. Each chapter starts with an outline of the expected learning outcomes to be achieved after having read the chapter. Please read these learning outcomes carefully and reflect them on your own after having finished a chapter as well as a course book in total.

The text is supplemented by tables, illustrations, definitions, information boxes and small snapshots on specific case studies that make reading and understanding of the content very easy. Additionally, most of the chapters include recommendations for further readings, as well as some voluntary questions for individual reflection.

Related Training Course and its Learning Outcomes

The course book series was originally embedded in a training programme for quality managers. In case you are interested in additional training and workshops on the issues discussed in the course books, you are welcome to contact the authors.

After completion of the whole training related to the course books (TrainIQA), participants should be able to:

- understand theoretical concepts of quality, quality assurance and quality enhancement and have the ability to evaluate them according to the various visions and missions of HEIs,
- design and carry out questionnaires and evaluations scientifically and control the related processes, apply appropriate techniques and scientific methods to reflect upon the results of quality assurance and to establish a quality loop with follow-up-processes on all levels of a HEI,
- deal with the requirements of quality assurance of study programmes and their revision, including the linkage to external quality assurance,
- recognise cross connections between quality development, staff development and organisational development,
- support change in the institution using strategies and methods to overcome resistance,
- support communication flows between faculty, senior management and relevant stakeholders of quality assurance and enhancement within and outside the institution,
- formulate ideas about how quality culture can be developed at the institutional level,
- structure your project in the form of a project action plan.

We hope our course book series is a useful resource that provides guidance when promoting quality in higher education institutions.

Enjoy reading!

The Authors

Preface

Introduction to the Module

As the first module of five in the TrainIQA course, this module and its related course book will provide the foundation for the topic of quality assurance in higher education and give you the basic knowledge about what quality in higher education is, where it comes from, why quality assurance should and must be carried out and how it can be set up and managed at a higher education institution.

Prerequisites for the Module

Being the first module, there are no specific prerequisites other than knowledge of the own higher education institution's administrative and management structure ("quality policy") and knowledge about the home country's and region's higher education system.

Intentions of the Module

Focusing on the strategic and operative level of quality assurance at higher education institutions, this module addresses both quality managers who are in charge of or involved in quality assurance at their institution as well as the institutions senior management responsible for quality assurance (usually Vice President, Vice Rector or Deputy Vice Chancellor for academics).

The module lays the groundwork of the training course and gives an introduction to two fundamental quality assurance related topics: quality assurance and management systems and change management.

The course book begins by addressing the topic of the quality concept in higher education (HE) as it is the basis to structure your quality work (Chapter 1). In the following it defines main terminologies and outlines the origins of QA to then answer the question why it is important for higher education institutions (Chapter 2). Further external and internal quality assurance will be introduced, with the main terminology, models and instruments (Chapter 3). Chapter 4 will outline first steps of the implementation of a quality management system (QMS) discussing different possibilities on how to structure QM, main actors' roles and functions and the process of implementation and revision of the system. The final Chapter 5 wraps up the content by discussing the question "When does a QM system live up to its purpose?" which will be resumed and discussed again in Module 5.

Before we begin, please read through the expected learning outcomes below. When reading the course books and participating in the course, keep in mind that the modules and course books are not designed to provide all the answers, but instead to give you the tools and knowledge in order to develop and clarify your own views. Although sometimes you might find strong statements by an author, we invite you not to take them as granted but to challenge them instead.

On successful completion of this chapter, you should be able to…

- evaluate and apply theoretical concepts of quality, quality assurance and enhancement on the basis of your own experience and context of your HEI,
- describe current developments of international educational trends connected to quality assurance and analyse them against the background of your own HEI,
- weigh possibilities of designing a quality management system in the context of the own institution,
- weigh possibilities of structuring QA and setting up an internal unit for quality assurance against the background of your own institutional framework conditions,
- understand and be aware of the roles in quality assurance and be aware of your own duties and responsibilities,
- reflect what needs to be considered for the design and implementation of a QA system at the own HEI.

Chapter 1

The Quality Concept in Higher Education

How to Define Quality

On successful completion of this chapter, you should be able to…

- explain the different concepts of quality in higher education,
- have a basic understanding of key aspects to be considered when defining quality at your own higher education institution,
- explain the shift from teaching to learning and evaluate its impact on your own quality work.

1 The Quality Concept in Higher Education – How to Define Quality

"Quality: The standard of something as measured against other things of a similar kind; the degree of excellence of something: an improvement in product quality."
(Oxford Dictionaries 2014)

At first, everybody knows and feels able to recognise quality, it is there. It inspires many minds to strive for the improvement in the most different fields of life. Quality can be a passion and evoke strong emotions, be they positive or negative.

The above definition of the Oxford English Dictionary initially seems to be obvious, but how do you apply it to a broader sector or field like car production, medicine or what is of greatest interest to us, higher education?

There is no easy answer, although at this stage we are not even asking ourselves how to achieve or measure quality. Maybe it is easier to look at it the other way round and define what quality is not? In everyday life situations one recognises bad quality quite easily afterall. This strategy could help, but then again it still might not lead to a definition that your institution (as a whole) stands behind, accepts and strives for.

So what is quality? Or in the words of Pirsig (1999) and Ball (1985) one might better ask "What the hell is quality?" Our first chapter will try to give you an overview on the discussion of the concept in higher education.

Answering this question for oneself and the institution (or programme etc.) is crucial to establish a basis for the quality work of the institution. It will structure your quality work, the mechanisms and instruments used. We therefore encourage you to read this chapter thoroughly, although it might seem that you are familiar with it. Sharp definitions and well-defined goals and objectives build the foundation of good quality work and systems and involve long discussions.

Questions & Assignments

1. How would you personally define quality of higher education and specifically for your institution? Write down up to ten bullet points divided in general and institution-specific points and save the file for your future reference.

1.1 What is Quality?

It is not a coincidence that many papers about the concept of quality in higher education cite Pirsig (1999) with a publication of the 1970s and Ball (1985) of the mid 1980s, although we are in the 2010s. It might be because it still is a question raised at different levels (from policy down to lectures) and on occasions such as conferences, workshops or internal meetings in the institutions.

On the one hand, this is due to the broad range of academic disciplines which are involved and those participants who are new to the discussion, and on the other hand, quality has to be redefined over and over again in a dynamic world of higher education. Without being able to predict the future: certain discussions about quality will probably continue and are, apart from some ever recurring arguments, a positive reflection of the fact that people are involved and care about quality. In the end all this might be a sign of a certain "quality culture".

Nevertheless, you will find and maybe understand that some professionals and researchers in the field want to move on and not continuously deal with the question of what quality at a conceptual level is. Woodhouse (2012) expresses this feeling thus:

> *"It is perhaps a sign of the newness of the field of QA that many speakers and writers still begin by saying 'there is no agreement on the meaning of quality', and quote a list of five meanings from 20 years ago (Harvey & Green, 1992). Even worse, for years we have been assailed with a quote from 40 years ago, namely 'What the hell is quality?'"*
> ***(Woodhouse 2012, 7)***

For the record, back in 1974 the philosopher Pirsig wrote:

> *"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 you 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 all 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 anyplace to get traction. What the hell is Quality? What is it?"*
> ***(Pirsig 1999, 139 et seq.)***

From the way in which the question is posed, it is unmistakable that defining quality is not an easy task, one might say it almost feels like nailing jelly to a wall. This being said, you will not be able to define the quality of others, for example for faculties, study programmes, research or lectures. Quality managers are however an important hinge between the field experts, stakeholders and the quality assurance community and research. They are a facilitator and moderator, there to initiate the discussion and help those involved to deal with and define quality for themselves.

1.1.1 What Quality is Not...

As depicted in the introduction, sometimes it is easier to look at things the other way round. If we look at quality, it is often misunderstood or used as a synonym for quality assurance or standards.

Quality vs. quality assurance vs. standards

Quality assurance does not define quality, it checks the quality of processes or outcomes and can have the purpose of compliance, control, accountability or improvement/enhancement. (Harvey 2012, 6) The important difference is that quality is a concept and quality assurance is a collection of methods on how to check, maintain and enhance quality with different processes, tools and instruments on different levels starting from the policy all the way down to the programme and course level.

Standards are often widely misunderstood and sometimes used as a synonym for quality. There is indeed a close relation between the two terms. A standard can be a pre-set criterion (e.g. lectures should be rated "good" in evaluations of the faculty) or a level of attainment (e.g. the lectures of the faculty have been rated "average" by the students). Usually standards are measurable indicators and used with the means to compare and assess things. Quality on the other hand refers to the process (e.g. how the lecture has been done). A much discussed topic when talking about standards and quality is whether the quality of the educational process can be measured by the standard of the outcomes. (Harvey 2004-14; Harvey 2012, 7)

Quality vs. Standards - A Golf Analogy

Harvey tries to make the difference between quality and standards clearer with a golf analogy:

> *"A quality standard is a fixed criterion, that specifies implicit or explicit expectations or norms. In golf, each course has a par score for each hole, which is the number of strokes that an accomplished player would be expected to take in normal conditions (in this analogy, the quality standard could also be described as a benchmark). The actual score achieved by a player is equivalent to the standard of achievement, which may be more or less than the par score (quality standard) depending on the climatic conditions. The standard is distinct from (although not entirely independent of) the quality of the play. A golfer may make excellent shots but is unlucky with the lie of the ball or is faced by very bad weather and so may not score well. Conversely, some poor quality play may result in lucky breaks and a good score".*
> ***(Harvey 2004-14)***

	Quality	Standards
View on:	Process	Outcomes
	Refers to how things are done	Used to measure outcomes
Golf analogy:	Elegant hit of the ball	Good score

Table 1 *Quality vs. standards (Harvey 2012, 7) (own table)*

There are four broad types of standards in higher education:

1. **academic standards** which relate to the intellectual abilities of students
2. **standards of competence** which relate to the technical abilities of students
3. **service standards** which refer to the service provided by the institution to the student
4. **organisational standards** which are principles and procedures by which the institution assures that it provides an appropriate learning and research environment (Harvey 2012, 8)

Now that we have partially defined what quality is not, by differentiating it from standards which are often mistakenly used as a synonym, we can further explore the different definitions which have been made for higher education.

1.1.2 Concepts of Quality

A key debate when discussing quality is if quality can be defined for higher education in general. Over thirty years of quality assurance in higher education has not helped to generate a growing consensus on how to define the concept of quality, but on the contrary has given birth to a much larger diversity of concepts (Damme, 2002, 43).

If you ask various stakeholders in higher education to define quality for higher education, they will most probably all define it with a very diverse focus as shown in the table below.

Different stakeholder views on quality

Stakeholder	Quality focus on…
Students	Practical use and usefulness for future employment vs. use for personal fulfilment
Lecturers	Processes of learning
Management	Achievements of the institution (tangible and intangible)
Alumni	Job opportunities
Employers	Competences of the graduates
Politics	Percentage/number of alumni
Community/society	Ethical and socially responsible persons Production of new knowledge to cope with present and future challenges

Table 2 *Stakeholder quality focus exemplary comparison*

The examples above show just one way the groups of stakeholders could see it and not even all possible stakeholders are listed. Leisyte et al. (2013, 3) for example further adds parents, administrators, media and community representatives as possible stakeholders of higher education. Further, there are also different views

within the groups themselves. Certain groups could even change the focus over time: when students become alumni they often define quality differently due to changed priorities and perspectives.

The large diversity of definitions has led many scholars to deduct that the concept borrowed from business and industry is not suitable for higher education. (Nicholson 2011, 4) Harvey and Green (1993) took another route and instead of trying to find one definition for all, they have identified five different approaches to define quality and have categorised them. The following part introduces the categorisation provided by Harvey (2012, 11–29) the most current definition of his and Green's quality approach. You will find a table which gives you an overview of the different concepts in comparison to standards in Annex 1.

Five quality concepts according to Harvey and Green

1. **Quality as exceptional or excellence** has three different variations:
   1.1. in terms of the traditional notion of quality as distinctive
   1.2. in terms of exceeding high standards - excellence
   1.3. in terms of passing a required standard comparable to a threshold

The **traditional notion** is associated with something exclusive and superior. This notion is not determined by an assessment but derives from the expectation that an elite education with its barriers, own rules and uniqueness can only be quality as such. There is no real criterion except the badge of elite education which is deducted from reputation and derived from many years of existence and history for example. This traditional concept is of no value for the question on how to assess quality and measure it.

The second approach under this category is quality **as excellence.** Excellence is a word that is often used instead of quality. In comparison to the traditional notion, the excellence notion has standards one has to comply with, which does not mean these standards are objective. An example of this notion would be taking the best students and providing them with the best resources (input) and then expecting excellence (output). It does not matter how (process) and if the input actually added value to the students excelling but one only looks at the input and the output. There are also other views of quality as excellence, for example external parameters such as publications, awards and research grants.

The third and last notion of quality as exceptional is far less elitist and sees **quality as something that passed a set of checks to assure minimum standards. These minimum quality standards** are granted when a certain defined threshold is passed. The standards can be set internally by the institution or externally by a ministry, agency or association for example. This approach makes the assumption that the nature of standards is objective and never changing, but being the outcome of a negotiation, standards are never objective and always subject to renegotiation.

2. Quality as perfection or consistency ('zero defects')

This notion sees quality in terms of 'zero defects' and 'getting it right the first time', meaning also that quality is a culture. Coming from our first definition of quality as exceptional or excellence, with this notion we move from the measurement of outcomes to processes. Quality is meant as something consistent or flawless. This notion replaces the focus on exclusivity with a democratic approach in the sense of making quality accessible to everyone. Quality culture is seen as a philosophy of prevention rather than pure quality control and therefore inspection.

The approach has been criticised as inapplicable to higher education, because it would produce uniform graduates or research instead of being independent, critical and analytical. But the `zero defects` approach does not have to be used for research and learning, instead it could be a good choice for processes like student grading and services offered by the institution.

3. Quality as fitness *for* purpose

This approach defines quality in terms of having a product or service that meets the purpose of what it is supposed to do as to fulfil a specification or stated outcome. Quality is judged by the fulfilment level of purpose. Therefore, it is like the 'zero defects' notion relative and inclusive and not elitist or special nor per se difficult to attain. It is functional and not exceptional. Does this mean that everything that is doing what it was designed for is to be considered quality?

This raises the question of who determines the purpose and if the purpose is a good one - the question of fitness of purpose. The purpose can be mission-based of the higher education institution which sets its own goals and objectives or it can be customer-driven which we prefer to translate into stakeholder-driven for higher education[1]. The purpose can be set externally so that fitness for purpose becomes compliance. Others see the purpose difficult to define, which is why fitness of purpose has been introduced to evaluate if the quality-related intentions of an organisation, service or product are adequate.

While fitness for purpose allowed inclusive quality, because everything can potentially fit the purpose and therefore, everything has a chance to be of quality, the fitness of purpose set a barrier to this inclusiveness by questioning acceptable purposes with an external view (i.e. stakeholders or the one's own mission/vision). Therefore, fitness for purpose should only be seen paired with fitness of purpose, otherwise purposes could be defined that have no reach or are not sustainable and adequate.

4. Quality as value for money

Value for money sees quality in terms of efficiency and effectiveness. The quality of provision, processes or outcomes are judged respectively against the expenses needed. In essence, quality is seen as the return on investment. There are two major views value for money can be divided into:

1. quality as in reaching a specified outcome at the lowest possible cost
2. quality as in reaching a specified outcome at a cost that is acceptable or that suits the customer.

Value for money is connected to efficiency and effectiveness, reaching goals with the least resources possible. It becomes increasingly important in times of budget shortages.

As an example of value for money in higher education, governments often try to spend as little as possible on higher education but have accountability mechanisms to make sure they receive value for money from the institutions. Also students who have to pay tuition fees seek more value for money the higher the tuition fee is.

1 It is an open debate if the term "customer" is appropriate for higher education and on the other hand who the customers of higher education are. We use it here for explanation purposes, following Harvey (2012). Those who agree, see the students as the main customer, often being in countries where students largely finance higher education with fees. Others even see the students as a product of higher education (Conway, Mackay, & Yorke 1994, 31). We prefer to use the term stakeholder in the higher education environment in order to clearly distinguish it from industry and production. A summary of the customer debate can be found in Redding (2005).

5. Quality as transformation

The transformative notion of quality sees quality in terms of a qualitative change and as a never ending process. The transformation accounts both for the individual and the organisation. In education it applies mostly to the enhancement and empowerment of students in terms of change through the learning process but also more generally to newly created knowledge in the institution for example in order to enhance the provision of transformative learning for their students. There are two underlying principles of the transformative view of quality:

1. **enhancing** the students – means that quality education has effects on the students and supposedly enhances them. It can though also refer to enhancing the service provided by the institution.
2. **empowering** the students – means enabling the students to influence their own transformation. In order to empower the students, they need to be involved in the decision-making of the transformation process which will then lead to self-empowerment. Independent learning contracts for example have students negotiate their learning experience including the assessment. Other examples that can lead to empowerment are feedback evaluations, guarantees of minimum service standards, provision of choices and development of students' critical reflective ability.

Quality thought as transformation needs among others

> *"shifting from teaching to learning; encouraging critical reflection; developing explicit skills, attitudes and abilities as well as knowledge; developing appropriate assessment procedures; rewarding transformative teaching; encouraging discussion of pedagogy; linking quality improvement to learning"*
> ***(Harvey 2012, 28)***

Transformation goes beyond enhancing or improving or just adding to higher education and students. According to Harvey (2012, 28–30) this notion unites all other definitions of quality and is mostly about a qualitative change of state. It means that not only is information increased, but that the way it is processed changes and allows students to reconceptualise, transfer, analyse, synthesise, think laterally and be critical.

1.1.3 Defining Quality

Watty (2006) argued that to define quality in higher education, you have to ask those closest to academia, teaching and learning: the students and/or the academics. The outcome of his survey among academics (only) was, that "quality in accounting education ought to be about transformation, defined in the questionnaire as: a unique, individually negotiated process between the teacher and the learner, where the participant is transformed" (Watty 2006, 298). In our opinion this would be too narrow because there are other stakeholders such as the state, the employers and alumni to be considered.

Deciding on a notion of quality

Some scholars interpret the many diverse conceptualisations of quality in higher education as proof of the concept coming from industry and the economy, not being suitable for the educational context. (Nicholson 2011, 4) It is a central debate about quality in higher education, "whether concepts derived from the profit centred sector can be readily transferred to public service organisations" (Green 1994, 7). This debate will also appear in Chapter 3, where internal quality management models are discussed. The differences derive from higher education institutions and academia being a special form of organisation with lived concepts such as academic freedom, not so defined chains of command, and the process of education being different from manufacturing products (Redding 2005, 410).

Harvey's and Green's summary of the different concepts of quality in higher education clearly depict that quality is multi-dimensional and complex. Depending on who defines quality, to which stakeholder group he/she belongs to, quality gets interpreted differently. There is not 'one' single definition of it. This makes it even more important that quality is clearly specified and defined for each purpose. To define quality for an HEI for example one might make use of some of the perspectives of the stakeholders shown in the previous chapter and selectively make use of standards as a minimum threshold.

Harvey and Knight (1996) see the notion of quality as transformation as incorporating the other four concepts they described and that we have summarised above. With the focus on development and improvement and the main concern of enhancing and empowering the students, they see quality as transformation as a meta-concept. (Harvey & Knight 1996, 14 et seq.) The other concepts on their own fail to encapsulate the whole meaning of quality and can only be partial definitions as they just assess provisions or outcomes against criteria, be they absolute or relative. That is why in our view, quality as transformation might be the best choice to see quality. As Harvey puts it:

> *"Transformative quality encourages an approach that sees quality as a dynamic and continuous; that does not simply encourage improvement but enables a process of transformation of the student, the researcher and the institution"*
> ***(Harvey 2012, 30)***

However Harvey and Greens (1993) approach, with the many different definitions and sub definitions of quality, has been criticised as not being helpful for everyday practitioners. Woodhouse for example says that by now everybody should have recognised, that Ball (1985) had already found the solution to the quality quest, namely fitness for purpose which for him includes the fitness of purpose concept. Woodhouse argues that this definition is sort of a meta-concept in the way Harvey sees it for the transformation notion. Fitness for purpose covers all other notions, "because all of them imply a specific characteristic or goal (i.e. purpose) that

should be achieved. […] and provides an 'organising principle' for approaches to the achievement and checking of quality. It is, furthermore, a principle that acknowledges the difficulties inherent in defining and achieving quality in complex systems and addressing these in an appropriate way" (Woodhouse 2012, 7).

Quality = fitness for purpose?

Using fitness for purpose is one way to define quality and it might also be an easier approach than Harvey and Greens transformation notion. On the other hand, it could come too short for certain institutions. As we have already noted in the introduction, quality remains elusive on a general level. Being a relative concept, it further has to be seen also as dynamic and changing.

A quality definition that works for one institution might not be implementable for another institution. Also a small institution with few similar study programmes might be able to define quality in detail for the whole institution, whereas a large institution with very diverse programmes might better set a general quality frame defining the specifics in the departments or programmes.

We therefore suggest to adequately analyse your own context at your higher education institution, especially looking at how and which stakeholders to involve, and to seek your very own transparent quality definition by means of discussion in your institution, constantly updating it and the system as well as instruments behind it. To give you further food for thought and to show a possible way, we will introduce a basic context-input-process-output framework and further introduce you to important relations of teaching and learning with other core services and functions of higher education institutions that can help you to define quality for different levels at your institution.

Questions & Assignments

1. Which quality concept would you personally follow?
2. Which definition/s would you say that your own institution currently applies and why?

Further Reading

- Harvey, L. (2012). Understanding quality. In Harvey, L., Kohler, J., Bucher, U., & Sursock, A. *Best of the Bologna Handbook. Understanding Quality in Higher Education 1* (pp.5–34). Berlin: Raabe.
- Leisyte, L., Westerheijden, D. F., Epping, E., Faber, M., & de Weert, E. (2013). *Stakeholders and quality assurance in higher education*. Enschede: Center for Higher Education Policy Studies.
- Sharrock, G. (2000). Why students are not (just) customers (and other reflections on life after george). *Journal of Higher Education Policy and Management*, *22*(2), 149–164.

1.2 Quality Dimensions and Framework: Input, Process, Output, Outcome, Impact and Context

We have learned that quality is a complex and multi-dimensional concept. Quality in education has many different stakeholders making it difficult for higher education institutions to live up to all the diverse and sometimes conflicting conceptions and expectations (see Chapter 1.3.2). The institution must be aware of its stakeholders and their role, expectations and views. Who are our stakeholders and how do they see quality of higher education? What are their needs? Regular exchange should be organised with the stakeholders, and instruments that help to fill blind spots should be implemented.

Quality can be seen in five dimensions that we are going to discuss: input, process, output, outcome and impact. On the one hand, it is important to keep in mind the distinction when assessing quality and on the other hand, it can be useful to define quality. Further it is important to consider the context of your institution. Being aware of these stages and the context is important for quality assurance in general at higher education institutions.

Using a basic model to define quality

The productive system as a framework where inputs are transferred into outcomes is one of the most frequently used methods to describe and clarify educational quality. (Scheerens, Luyten, & Ravens 2011, 35–37) In light of the difficulty in defining quality, it can be used as a tool to negotiate and unite the different stakeholders both internal and external to academia in their views, wishes and requirements. That being said, it might be an impossible task to specifically define quality for the whole institution, depending, for example, on the different cultures and context of the faculties. One way to cope with this could be to generally define quality of teaching and learning on the institutional level (e.g. with guidelines) and leave room for specific definitions in the faculties or departments.

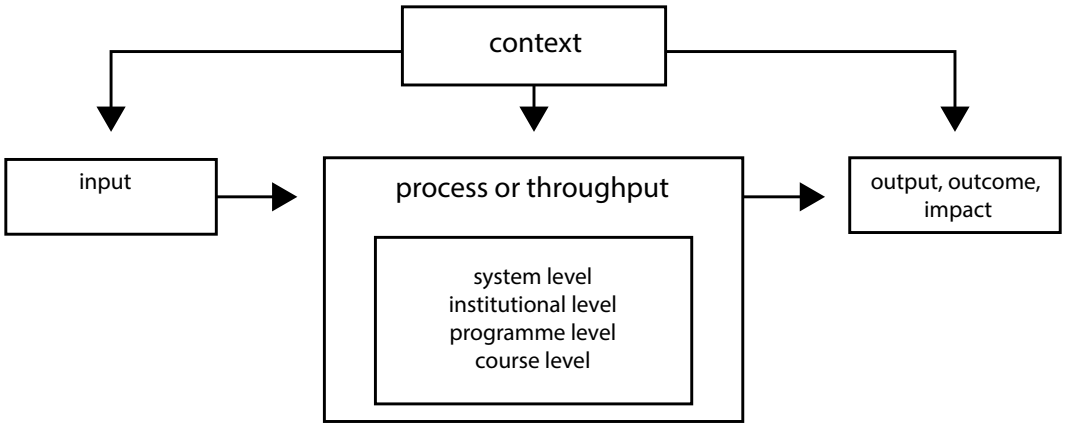

Figure 1 *A basic sytem model on the functioning of education (adapted from Scheerens 2011, 36)*

Above you can see a basic system framework adapted from Scheerens et al. (2011, 40) on the functioning of education, which we will further review step by step as applied to higher education institutions. The model above is basic and can help you to define quality by adapting it to your own situation. In the “process or

throughput box", you can consider different levels: such as the system level, the institutional level, the study programme level and the lectures level and in fact also any process. The context could be for example to incorporate external quality assurance systems by governments. Apart from that is important to generally keep in mind the following when setting up your framework model (Scheerens, Luyten, & Ravens 2011, 36 et seq.):

- Recognise the hierarchical nature of conditions and processes (multi-level governance).
- Differentiate outcomes in outputs, outcomes and impact (see below).
- Include the regional, national and own HEI context dimension. The context is a source of inputs and constraints but on the other hand affects and provides required outputs/outcomes/impacts.

The model we use here is also known as the CIPO model (i.e. Context, Inputs, Process and Output) and is frequently used in evaluation studies. Other models could be used too: Chua (2004) for example based her study on the perception of Quality in HE on the I-P-O model coming from software development though this does not consider the context. The Context, Input, Process and Product (CIPP) Evaluation Model of Stufflebeam (1971; 2012), is another evaluation model often used in education (see more on evaluation theory and concepts in Module 2) that could be used.

1.2.1 Input Dimension

Inputs in higher education, and in general, are the resources available which are put in place for the own goals, services or products of the institution, organisation or company. In higher education this basically means providing the environment to students for their individual knowledge development but on the other hand can also mean the recruiting of students themselves[2]. Generally the inputs can be divided into three categories which we can add to our model:

1. financial and material resources (budget, facilities, equipment and materials, incentives, etc.),
2. human resources and staff qualifications (professors, lecturers, tutors, administration, service personnel etc.), and
3. service resources (student secretariat, career centre, student counselling, student exchange etc.).

Input: What is needed for teaching and learning to begin with?

Also the students themselves and their background conditions (social backgrounds, diversity, student access etc.) can be seen as input. For the framework model, you have to consider what the reality of inputs at your institution is and what could influence the quality of teaching and learning. In a nutshell: which and what input do I need for teaching and learning of high quality?

As already explained with the traditional notion of quality, which sees excellence in mobilising the best resources for the best students available, focusing on inputs does not necessarily lead to the improvement or enhancement of quality. On the contrary it is said to have "the effect of locking a system into a set way of doing things and inhibiting innovation" (Horn & Mackey 2011, 1).

2 Not to be seen strictly in a sense of students being input (although some might think of it that way), but still we can recognise that the students' background and intellectual capacity matter in higher education.

1.2.2 Process Dimension

Process: How does teaching and learning work and how should it be?

The process dimension describes how things are done and is sometimes a black box for organisations, meaning there is no knowledge available about how the inputs get transformed into outputs.

Figure 2 *Process as a black box*

Examples of the process of teaching and learning and possible questions to define quality therein are:

- Teacher and student behaviour – how is the process of teaching and learning working and how should good teaching and learning be done at the institution? Do lecturers consider diverse forms of learning for example?
- Administration – how does the administration support the students and academics in teaching and learning?
- Research – what is the role of research in teaching and learning? How are they connected?
- Quality assurance – what is the role of quality assurance and what do we expect from it?
- Curriculum – how are curricula run and what is a good curriculum, what should it have or not have?

The process dimension is most crucial for teaching and learning quality as the teaching and learning itself are to be seen in this dimension. Constraining inputs can be addressed or balanced and modes of how things should or have to be done can be set to achieve the objectives and goals.

1.2.3 Output, Outcomes and Impact Dimensions

Sometimes in articles, models or frameworks you will only see output at the end of the processes. This could be suitable for the production of goods, but for education (and other cases too) one should widen the view and include outcomes and impacts.

Output, Outcomes and Impact: What is and should be at the end of the teaching and learning process?

Output is generally the more direct result of the process. In the production and service industry it would be for example the goods at the end of production, the service offered or revenue and profits. Consider a pharmaceutical company, which as a result of its work has a new drug. This would be the output.

In comparison to outputs, **outcomes** are a step up the hierarchy ladder. Outputs are the end of the process; outcomes are changes that have occurred because of the process. Outcomes are what the outputs influence and achieve, the benefits others receive from the outputs or the changes they started, be they intended, unintended, expected or unexpected. Taking the pharmaceutical company's example again, this could be that people are cured thanks to the drug.

Impacts on the other hand are long term or indirect effects of the outcomes and therefore very hard to measure and to link to the processes: "*In the end, impacts are what we hope for but outcomes are what we work for*" (Penna 2011, 20) is a famous citation in the context of the non-profit sector in this regard. Staying with our example, the impact could be reduced state health costs because of the new drug. The commonality of outputs, outcomes and impacts is that all of them can be intended or unintended, positive or negative and expected or unexpected. It is sometimes not easy to differentiate between outputs and outcomes. To help, the difference can be seen as extrinsic (output) vs. intrinsic (outcomes) and in the content relation: outputs are not content related and are not benefits or changes achieved for the students or stakeholders.

The table below will give you some more examples for the differentiation in higher education. The different levels only serve to show different impacts they could be targeting, but output, outcomes and impacts could be per se the same for all of them.

Level	Output	Outcome	Impact
Lectures	Students with passed exam	Students with knowledge and skills on topic of the lecture	Students successfully master the final exams and graduation
Study programme	Graduates with diploma	Graduates with increased knowledge and skills who find a respective job	Graduates who serve and improve society and the economy and are successful in their job
System	Increase of number in graduates	Qualified workforce for society and labour market	Higher educational status of population and advancement of society and the economy

Table 3 *Comparison of output, outcome and impact in higher education*

The question of output, outcome and impact brings us again to the question of who should define the purpose and quality of higher education. The government, the students, the employers, the managers of institutions or the academic professionals or even the parents in some cultures? (Tam 2001, 49)

Higher education institutions should negotiate and unite the views of their stakeholders (which can be different from HEI to HEI) and manage possible conflicts. This means stakeholder involvement is crucial for the definition of quality and needs to be managed in order that the stakeholders formulate and input clear expectations and ideas. This leads us to the next point, the context dimension, as quality cannot just be defined in the ivory tower.

1.2.4 Context Dimension

The context is sometimes neglected or underestimated. As we have seen in the introduction to this chapter it is not always incorporated in the frameworks, models and definitions. If there was no context, one could do copy and paste in systems and mechanisms of quality assurance in higher education and it would work anywhere in the world.

Context: What needs to be considered from the institutional internal and external setting?

There are many contextual factors which have to be taken into account which will lead to different ways of defining quality. Important contextual factors can be demographics, cultural aspects, regional characteristics as well as the level of freedom and autonomy of higher education institutions. When defining quality, or in the case of our CIPO framework, all possible contexts have to be taken into account. Some can be restrictive, others can be advantageous. Still the key is to adequately consider them and should they be found to be restrictive, find creative ways to best address them.

Context in the quest for quality in higher education can be:

- the institutional setting, autonomy, mission and vision
- the policies and state regulations (e.g. external quality assurance) with possible guidelines or standards
- demographic change (increasing as in Southeast Asia or decreasing as in many European countries)
- globalisation and competition
- community and/or stakeholder needs

The list above is non-exhaustive. Your own institution might have its very own special or exclusive context. It can be influenced or controlled from outside, it can provide special input and strengths and advantages or on the contrary be a source of strong constraints. All these have in common that the direction of influence is always from the context. (Scheerens, Luyten, & Ravens 2011, 47 et seq.)

Questions & Assignments

1. Building up on your reflection you did after Chapter 1.1, design your own basic framework to define quality for teaching and learning in your higher education institution especially focussing on the context of your higher education institution. You will find an editable template in the materials folder of Module 1 on the OLP.
2. Post your framework on the platform and discuss the different contexts with other participants. What are the differences and similarities? Can national patterns be seen?
3. Think of presenting your quality definition framework to different stakeholders. What would be their critique and how could you react to it?

1.3 The Relation of Teaching and Learning with Services, Administration and Research

The focus of the TrainIQA modules is quality assurance in teaching and learning. However, as we have seen in the previous chapter about the different quality dimensions, one has to consider other core processes besides teaching and learning at the institution usually being services, administration and, last but not least, research which we will exemplarily describe in the next sub-chapters. Other examples of core processes could be different from institution to institution or country to country, like knowledge transfer, entrepreneurship and also community service.

It is important to know the interrelations between these core processes when setting up quality mechanisms and systems. Each of these fields can have their own quality assurance and in the best case they are integrated in the overall quality assurance system of an institution. On the next pages we will further relate teaching and learning and its connections to these fields.

1.3.1 Services

With service we mean the general services offered by the higher education institutions to their students and employees. The quality of services can support the profile building of a HEI if certain focuses are set. Other services are a prerequisite and have to be available and work smoothly, because without them HEIs cannot function and fulfil their purposes and goals. In this light some of the services listed below might be indispensable for an institution and for others the cherry on the top:

- infrastructure and maintenance
- IT and broadband internet access
- library and access to electronic books/journals
- sports & recreation
- mobility on and to the campus as well as between campuses
- laboratories
- food and canteens
- scholarships
- foreign exchange (manageable in the prescribed period of studies)
- career services
- start-up assistance
- helpdesks, counselling and mentoring on different topics for students
- ..etc.

The list could go on and on, and some institutions surely will be able to offer more services than others, it being a question of size and budget. Depending on the institution's specialisations and context as well as surroundings, other specialised services might be of good value too. The HEI has to provide the necessary services and constantly adjust them to the needs of students, employees and faculties/study programmes. Some services, like a good IT infrastructure, are nowadays a must for teaching and learning and no one would argue the contrary. Services are directly connected with teaching and learning.

1.3.2 Administration

Administration is a further main task of HEIs which is directly related to the quality of education. Apart from the basic administrative tasks every employer has to cope with (finances, human resources, salaries and travel expenses etc.) institutions need to manage many things related to academic life and education:

- student admission (organisation and recognition of degrees)
- student assessment (registration and timing)
- lectures and seminar timetables (no overlapping)
- awarding of diplomas (in time)
- dealing with tuition fees

All in all, administration has to work for teaching and learning and other core services with a minimum of bureaucratic effort.

1.3.3 Research

The importance given by academics to research is mostly stronger than the one given to teaching and learning. That is one of the few areas of consensus in higher education research and literature. (Young 2006, 191–194) This is due to the bigger rewards and higher reputation researchers can achieve in the community. However it is a highly discussed topic. You will find many discussions and blog posts on the balance between teaching and research online. It suggests that many lecturers are finding it hard or have contrary views.

Higher education institutions can focus on teaching and learning or research depending on their context – for some it might be the better choice to survive in a globalised higher education market. Some do strive for research excellence although the basic structure is not given and maybe they have a high local demand for higher education. More regionally positioned and not so research oriented institutions could ask themselves, whether it would be better to concentrate on teaching and education of students. Others might question such a focus, since, in their opinion, a HEI needs strong research.

Research is a pillar of higher education and it should feed teaching and learning, the so called research-led teaching. This means that research is not only essential for itself but also for teaching and learning as well as the overall success of the institution and even countries/regions. Still it does not mean that research needs to be the main goal of every HEI. This is very context-specific and by analysing it, HEIs could find the proper balance for their situation.

Research as in partially funding teaching and learning: research is not only important and a matter of reputation but it is a main source for external funding. Although there are the first signs and attempts to give teaching more incentive with external funding, it is still only a small amount in comparison. In times of dwindling state finances this is often a welcome compensation which also means that part of the money is used to complete the general tasks higher education institutions are expected by the public to fulfil. The pressure is increasing for academics to generate third-party funding to support their own salaries but also in some cases even teaching and learning.

Research as in reputation for teaching and learning: good research brings good reputation which also transforms into a good reputation for study programmes. This is especially the case for rankings which are often strongly research-oriented but still students and society see this an indication of good teaching and learning or at least of a higher status diploma if achieved at an institute with good research reputation. Students care about who is doing the teaching. It is not solved if HEIs which want to focus on teaching hire a lot of junior staff who merely teach from text-books. The input from research and projects are most valuable for teaching.

All in all, HEIs must find the right balance between research and teaching and learning in order to achieve quality in education, whether the institution is more research or teaching and learning oriented. However, one important step for quality of teaching and learning would be to have instruments of reward for teaching in place, that support and stress the importance of teaching and learning at the institution.

Questions & Assignments

1. What are the core processes of your institution? Which ones could be part of your quality definition and how would you integrate it for quality assurance of teaching and learning?
2. Choose one crucial service at your institution and describe the role it has for quality and quality work.
3. Where do you see conflicts between administration, research and teaching and learning at your institution? How do you see the ideal situation and what could be done to overcome the conflicts?

1.4 The Shift from Teaching to Learning

> *"A common criticism of quality assurance is that it pays little attention to educational processes, educational theory and/or student learning and as a result, improvement or enhancement is only incidental".*
> ***(Nicholson 2011, 8)***

Quality definitions can not only be influenced by goals, core processes, context etc., but also by learning theories and didactical approaches. They are one possible answer to the question what quality in teaching and learning is and bring consequences for the quality work of institutions (see table 4 below).

What is good teaching and learning? Sage on the stage or guide on the side? The last question in the words of Alison King (1993) shows the current two main opposite views. We have already seen that focusing on inputs does not nurture change and development but it is outcomes that do (Chapter 1.2). The paradigm shift from teaching to learning which can be observed globally, can be seen as a shift from input to output and outcomes.

Student centred learning

The shift has its origin in student-centred learning (SCL) research in the 1980s onwards, which by consensus is based on the idea that the student or learner is at the centre of the learning process. (Attard et al. 2010, 6) Student-centred learning is a constructivist approach led by the ideas of Jean Piaget. Constructivism sees the learners' as pro-actively constructing their own knowledge rather than receiving it from teachers and textbooks. The constructivist view is of the strict opinion that knowledge cannot be just transmitted to students, they need to construct it on their own. Hence, the focus is not on the teachers' knowledge that they transfer to the students, but on the knowledge and competences a student is able to achieve. This has strong implications for teaching and learning, and is not compatible with traditional learning, moving the focus away from the teacher towards the student. (Stage et al. 1998, 35 et seq.)

One of the most influential and cited articles on learning in the last 20 years came from Barr and Tagg (1995). They analysed the current state of teaching they call the "Instruction Paradigm" in undergraduate education. They argue that "our dominant paradigm mistakes a means for an end" (Barr & Tagg 1995, 12), because

instruction cannot be the goal of higher education but "rather that of producing learning with every student by whatever means work best" (Barr & Tagg 1995, 12).

Instruction paradigm

This instruction paradigm is often also referred to as traditional or conventional learning in literature. It sees the students as passive receptors of information without considering active involvement of the students in the learning process. Often the motivation derives from competition between students based on grades within traditional learning settings (lecture and laboratories). The teacher is responsible for the curriculum, setting tasks and to formulate the assessment procedure focused on the next exam. (Attard et al. 2010, 8) Conventional learning by means of front lectures is a method that had and still has its reasons and right to exist, but with new requirements addressed to students and the massification of higher education and diversification of the student body (see Chapter 2.4.2.1), it cannot be the only and main one.

Student-centred learning is diametrically opposed to the traditional learning concept and sees the students responsible to actively construct and make their educational processes in an intrinsic motivational setting rather than the above described competition of grades in the traditional notion. (Attard et al. 2010, 9) The SCL approach gives the teacher a new role of a supporter, facilitator and guide for self-regulated learning which on the other hand also requires new skills of the teachers. (Van Eekelen, Boshuizen, & Vermunt 2005, 447 et seqq.)

The new learning paradigm can be partly traced back to the democratisation and massification of higher education. With wider access and increasing birth rates (in some countries) very diverse students have entered higher education institutions, which has called for new forms of teaching and learning. (Attard et al. 2010, 10) The paradigm shift started on paper in the 1990s in the English-speaking countries and northern Europe. Many mission statements of HEIs nowadays have the student at the centre in some way or another. There is a stronger focus on skills development, core competences and lifelong-learning. (Rust 2002, 146) The question however is how far will the change in teaching methods and assessments go.

Learning vs. instruction paradigm

Comparison of Educational Paradigms by Barr and Tagg (1995)	
The Instruction Paradigm	**The Learning Paradigm**
Mission and Purposes ■ Provide/deliver instruction ■ Transfer knowledge from faculty to students ■ Offer courses and programs ■ Improve the quality of instruction ■ Achieve access for diverse students	**Mission and Purposes** ■ Produce learning ■ Elicit students discovery and construction of knowledge ■ Create powerful learning environments ■ Improve the quality of learning ■ Achieve success for diverse students
Criteria for Success ■ Learning varies ■ Inputs, resources ■ Quality of entering students ■ Curriculum development, expansion ■ Quantity and quality of resources ■ Enrollment, revenue growth ■ Quality of faculty instruction	**Criteria for Success** ■ Learning varies ■ Learning & student success outcomes ■ Quality of exiting students ■ Learning technologies development ■ Quantity and quality of outcomes ■ Aggregate learning growth, efficiency ■ Quality of students, learning
Teaching/Learning Structures ■ Atomistic; parts prior to whole ■ Time held constant, learning varies ■ 50-minute lecture, 3-unit course ■ Classes start/end at same time ■ One teacher, one classroom ■ Independent disciplines, departments ■ Covering material ■ End-of-course assessment ■ Grading within classes by instructors ■ Private assessment ■ Degree equals accumulated credit hours	**Teaching/Learning Structures** ■ Holistic; whole prior to parts ■ Learning held constant, time varies ■ Learning environments ■ Environment ready when student is ■ Whatever learning experience works ■ Cross discipline/department ■ Specified learning results ■ Pre/during/post assessments ■ External evaluations of learning ■ Public assessment ■ Degree equals demonstrated knowledge and skills
Learning Theory ■ Knowledge exists “out there“ ■ Knowledge comes in chunks and bits; delivered by instructors and gotten by students ■ Learning is cumulative and linear ■ Fits the storehouse of knowledge metaphor ■ Learning is teacher centered and controlled ■ “Live“ teacher, “live“ students required ■ The classroom and learning are competitive and individualistic ■ Talent and ability are rare	**Learning Theory** ■ Knowledge exists in each person‘s mind and is shaped by individual experience ■ Knowledge is constructed, created, ■ Learning is a nesting and interacting of frameworks ■ Fits learning how to ride a bicycle metaphor ■ Learning is student centered & controlled ■ “Active” learner required, but not “live” students required ■ Learning environments and learning are cooperative, collaborative & supportive ■ Talent and ability are abundant
Productivity/Funding ■ Definition of productivity: cost per hour of instruction per student ■ Funding for hours of instruction	**Productivity/Funding** ■ Definition of productivity: cost per unit of learning per student ■ Funding for learning outcomes
Nature of Roles ■ Faculty are primarily lecturers ■ Faculty and students act independently and in isolation ■ Teachers classify and sort students ■ Staff serve/support faculty and the process of instruction ■ Any expert can teach ■ Line governance; independent actors	**Nature of Roles** ■ Faculty are primarily designers of learning methods and environments ■ Faculty and students work in teams with each other and other staff ■ Teachers develop every student‘s competencies and talents ■ All staff are educators who produce student learning and success ■ Empowering learning is challenging and complex ■ Shared governance; teamwork independent actors

Table 4 *Comparison of educational paradigms (Barr & Tagg 1995, 16 et seq.) (own table)*

Another way to define good teaching and learning is in the lines of the relationship between teaching and learning and research (see Chapter 1.4). It could be Wilhelm von Humboldt's idea of the unity of teaching and research (Einheit von Forschung und Lehre). It builds up on the researchers gaining new knowledge from teaching and the exchange with students, so to speak incorporating them into their research and making research part of the teaching. There is no "the teacher's purpose is the student", but the purpose of both is science which is continuously evolving/emerging and never terminated. (Humboldt 1809/10) This would be a way on how to define the relationship of teaching and learning and research we have discussed in Chapter 1.4.

Possible Deductions from Defining the Quality of Teaching and Learning

- Install a scholarship and/or award of teaching
- Set-up a centre for academic development that propagates your principles and vision of good teaching and learning (theory-based)
- Deduct processes and guidelines for teaching (theory-based)

Student centred learning together with a research based ideal could be one way to define quality in teaching and learning. Teachers would be able to input their research and have the students do practical experience with research on their own, which can then be fed back to research and be of benefit for both teacher and student.

Questions & Assignments

1. Compare the instruction approach to teaching with the learning paradigm. Which paradigm is predominant in your institution and which consequences do you perceive from it for your institution?
2. How would you define good teaching and learning?
3. Which steps would you undertake and who would you include to define good quality of teaching and learning for your institution? Is that even possible for the whole institution and if so, how?
4. Which steps would you take to define quality for your institution, how would you tackle it and what needs to be considered? Prepare a short action plan including the stakeholders and groups you would involve and why.

Further Reading

- Attard, A., Di Iorio, E., Geven, K., & Santa, R. (2010). *Student centered learning. An insight into theory and practice*. Bucharest: ESU.
- Barr, R. B., & Tagg, J. (1995). From teaching to learning - a new paradigm for undergraduate education. *Change: The Magazine of Higher Learning, 27*(6), 12–26.

Chapter 2

Quality Assurance in Higher Education

Main Terminology, Origins and Motives

On successful completion of this chapter, you should be able to…

- describe and differentiate between main quality assurance terminologies,
- describe the difference between external and internal quality assurance,
- describe the origins of quality assurance,
- describe the rise of new quality assurance forms in higher education,
- describe different reasons and motives for HEIs to engage in quality assurance,
- reflect the main reasons and motives for the own HEI to engage in QA.

2 Quality Assurance in Higher Education Main Terminology, Origins and Motives

In the first chapter we have shown that quality in higher education is a complex matter and that it is important to know the different notions of quality in order to be able to define it for one's own context to use as a basis for quality management.

Having defined quality as a first step, many more questions arise: how can quality be measured, controlled, assured and enhanced? For all these questions, it cannot be emphasised enough that a good quality definition and concept is at the core of everything related to quality work:

Importance of a quality definition

- To have a **common (minimal) understanding** in the institution and guidelines for the lecturers but also for the students to let them know what they can and should expect (they should be involved in the definition).
- To be outwardly **transparent**, to show and prove that the institution is caring and engaged in quality, and generally to be transparent about what the HEI understands under quality.
- To produce **ownership** of quality in the institution and support a "quality culture" and raise awareness on the topic.
- To **structure quality assurance**, methods and instruments accordingly – without a definition your quality work could be unsupportive and for example focus on control instead of enhancement.
- To be able to **measure quality** of the institution, programmes and lectures etc.

Another general main foundation is the presence of a well formulated institutional mission, a vision and objectives which lead to a strategy that can be followed and connected with the definition of quality.

One crucial challenge which arises from defining quality, and therefore challenges quality assessment and assurance too, is to manage the different stakeholder views and voices of quality. They are (always) connected with conflicting views. It is challenging to give each stakeholder group their respective importance and setup a quality assurance system that builds upon that. This diversity in views is mirrored in the different types of quality approaches, systems and instruments which all have different priorities and focuses, and which concentrate on different levels. (Tam 2001, 49)

In the following, we will introduce you to the main terminologies and quality assurance in higher education, from its origins in economics to the current state in higher education, discussing the motives for higher education institutions to engage in quality assurance and commit to quality.

2.1 Main Quality Assurance Terminology in Higher Education

The word quality is often used as a synonym for quality assurance, although as we have learned in the first chapter (Chapter 1.3.1), one is the conceptual underpinning and the other is a methodology to check a process or outcome and can have the different purposes of compliance, control, accountability and improvement. (Harvey 2012, 6)

The terminology in quality assurance is often ambiguous and loosely used (Martin & Stella 2007, 33). It is therefore important to define some of the basic terms to build a common ground. Lee Harvey (2004-14) has developed a glossary which builds the basis for our module publications.[3]

2.1.1 External vs. Internal Quality Assurance

One main distinction which can be made in higher education quality assurance is between external (EQA) and internal quality assurance (IQA).

By definition, external quality assurance is localised outside of the higher education institution. It can therefore be anything related to quality assurance that is driven from outside the institution and which evaluates or assesses the institution as a whole or in regard to a certain topic such as internationalisation, gender equality or a programme according to standards that are either agreed upon or pre-set (Sanyal & Martin 2007, 5). EQA can be compulsory, as in regulated by law, or voluntary.

Different forms of EQA

Compulsory EQA: is the most common way of using the term EQA and describes the external quality assurance systems and mechanisms that are driven by governments, states and regions who have legislative power and develop policies, procedures and standards to which HEIs have to comply to. The national regulatory bodies externally assess or review the institutions for purposes such as accountability, control and improvement. These EQA mechanisms can give approval or have consequences on the programme or institution which have to be adhered to. In the worst case a programme or institution could be shut down.

Voluntary EQA: in contrast to compulsory EQA, voluntary EQA does not have the authority to question the right of an institution or programme to exist. Being voluntary, it has the means of improvement or often also to comply with standards which are set by an external organisation. Voluntary EQA activities often result in a label or certificate that, in contrast to compulsory EQA, has no control or decision-making power on the study programmes for example. Either the certificate is given, or not, but the institution has no obligation to react or comply with anything according to the outcome. Voluntary external quality assurance can be compared to external evaluation (see Module 2).

3 It can be accessed freely on the internet under http://www.qualityresearchinternational.com/glossary/ and is constantly being up dated. One distinctive feature of the glossary is, that it gives the main definition and explanation and on top shows the analytical discussion of the terms in literature. For the purpose of our modules we discuss the most commonly used terms here using the core definition of Harvey (2004-14), mostly leaving the explanatory context and extensive analytical review to be read online if interest or need persists.

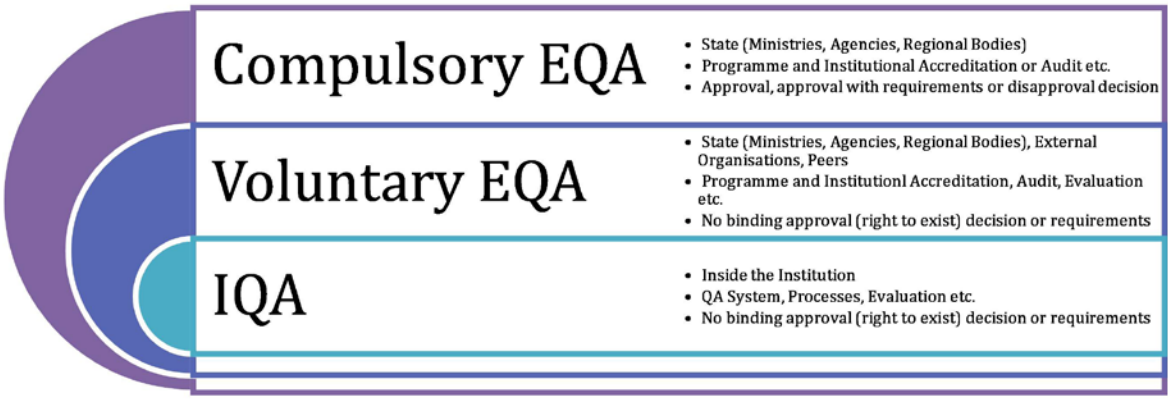

Figure 3 *Differentiation between external quality assurance (EQA) and internal quality assurance (IQA)*

The most common and known example for a compulsory EQA instrument is accreditation (see Chapter 3.3.4) which though in some states or cases can be voluntary too. Examples for voluntary accreditation are the accreditation system in the US and the accreditation by internationally active agencies such as the Accreditation Board for Engineering and Technology (ABET). Generally, the instrument and process is the same as for compulsory EQA. The main difference is that compulsory accreditation can approve a programme or institution, approve them with requirements or disapprove them altoghether. Voluntary EQA can have consequences too (i.e. not receiving the label or certificate and its advantages), but none that could force requirements or shut downs.

Other forms of voluntary EQA can be audits or assessments organised by regional organisations such as the African and Malagasy Council for Higher Education (CAMES), the ASEAN University Network (AUN, see case study below), the European University Association (EUA) or the Inter-University Council for East Africa (IUCEA).

AUN-QA – The Need for Corporate Governance in Quality Assessment

ASEAN University Network-Quality Assurance (AUN-QA) network is a group of Chief Quality Officers (CQOs) appointed by the ASEAN University Network (AUN) member universities and associate members as the focal point for coordinating activities to realise the mission of harmonising educational standards and seeking continuous improvement of academic quality of universities in ASEAN. The AUN-QA activities are carried out by the CQOs in accordance to the Bangkok Accord adopted in 2000, which provides a series of guidelines to promote the development of a quality assurance system as instruments for maintaining, improving and enhancing teaching, research and the overall academic standards of AUN member universities.

The first AUN quality assessment was inaugurated in 2007. After the initial years of carrying out AUN quality assessments, the network envisaged the need to establish a set of operating guidelines to spell out the roles, responsibilities and requirements of the applying universities (assessees), assessors, observers and staff of AUN Secretariat. The aim was to provide a common frame of reference, corporate governance and accountability to the AUN quality assessment process and stakeholders.

In 2011, a manual on "Guidelines for AUN Quality Assessment and Assessors" was deliberated at the CQOs meeting, approved and distributed to all CQOs, assessors and workshop participants. The guidelines were formulated to meet Section 3.8 of the Standards and Guidelines for Quality Assurance in the European Higher Education Area, Third Edition, 2009. The guidelines resulted in the establishment of the Quality Assurance Council in 2012. The functions of the QA Council are:

- Formulate, govern and review directions and policies for the operation of the AUN-QA network;
- Formulate and review guidelines, criteria, and documentation for AUN-QA models, assessment process, assessor's appointment, membership, and certification scheme and fees;
- Appoint AUN assessors and develop the system for training and certifying them;
- Endorse assessment reports and certification status;
- Revoke certification status of university if it fails to honour and fulfil its public and social duties, undertakings and obligations to its stakeholders including AUN-QA network; and
- Approve and revoke status of associate membership in the AUN-QA network.

The manual also spelt out AUN-QA processes, roles of various stakeholders, code of ethics and a no-conflict-of-interest mechanism for its assessors.

Johnson Ong Chee Bin (2015)

Internal quality assurance: this term summarises all mechanisms, instruments and systems for quality assurance which are within the higher education institution and ensure that the institution or programmes are meeting their own standards and objectives (Sanyal & Martin 2007, 5). Internal quality assurance is influenced by the governing external quality assurance system of the country (and region in some cases). But generally institutions are encouraged and free to implement their own processes and system as long as they comply

with the external regulations and policies. IQA instruments and mechanisms can be the setting of processes, standards, internal evaluation, assessment etc. but for example also make use of external peers.

As we have seen, there is often an overlap between the two EQA forms and IQA. The self-assessment in preparation of an accreditation for example is also a form of IQA but implemented in the process of an external quality assurance instrument. It shows that the boundaries between EQA and IQA are fluent in terms of instruments and mechanisms. Another example that illustrates this is the use of external peers for the purpose of a department evaluation: although external peers are at the heart of the process, it is to be seen as IQA, because it is initiated from within the institution and carried out with its own interests and "rules" that the external peers are asked to fulfil – giving their external view on the matter in question.

Wherever there is judgement and things are at stake situations can be challenging. This sometimes accounts to the relationship between EQA and IQA too. Possible challenges need to be taken account of when quality assurance is implemented, be it external or internal, and ideally ways should be found to circumvent them. This applies mostly to the compulsory government driven EQA activities. Their judgement can have rigorous consequences for the programmes or institutions. Higher education institutions often criticise the bureaucracy and workload set by the compulsory EQA system and sometimes argue that the national regulatory bodies are not capable of judging the quality of programmes or institutions. Most states have addressed the latter critique by adopting peer-review based instruments like accreditation. But still there are barriers to be overcome and many see the need for a stronger bond between EQA and IQA to complement each other for the joint quest for quality. In order to reach this goal though, there is much still to be done on both sides, starting from mutual trust to available human expertise and to new or revised models and methods.

Higher education institutions need to value the external expertise, recognise the importance of stakeholders and understand the reasons and goals behind EQA. They should not just try to comply with the minimum standards they are requested to deliver but make use of the room for manoeuvre they have. On the other hand, regulatory bodies need to better understand higher education institutions and see the ownership of quality in higher education in the hands of the institutions themselves.

Questions & Assignments

1. What is the difference between EQA and IQA?
2. Are there forms of voluntary EQA that your institution undergoes and for what reason?
3. What are the measures taken by your institution that go beyond the compulsory needs of EQA?

2.1.2 Quality Assurance vs. Quality Management

The terms quality assurance and quality management are either used interchangeably or defined as quality assurance being part of quality management. (Vlăsceanu, Grünberg, & Parlea 2004, 15) The use of these and other quality terms are often ambiguous, which makes it difficult to find a consistent definition. Even the core definitions of the analytical quality glossary below exemplarily show the overlapping of the meanings and use of the terms quality assurance and quality management.

The focus of our course is internal quality assurance at the institutional level. Internal quality assurance is part of the overall steering and management of the HEI, on the institutional and programme level, to ensure one's own purposes and goals are met. It defines the intentions and procedures although some might be externally prescribed. (Martin & Stella 2007, 34)

In our module publication series we use the term quality assurance as an all-embracing term, comprising external and internal quality assurance (within and outside the HEIs – see Chapter 2 above). Inside the higher education systems though, we see quality assurance as one measure of quality management. Quality management at HEIs includes all nuances and components of quality work: **quality control**, **quality assurance**, **quality assessment** and **quality enhancement** (Vlăsceanu, Grünberg, & Parlea 2004, 74).

The main distinction between quality assurance and quality management is that quality management is a way to steer higher education institutions in order to improve, enhance and develop quality continuously. Quality assurance on the other hand stops at ensuring a certain predefined level of quality in order to maintain it. Quality management can be seen as the management of change in order to have higher education institutions adapt their doing to address current and future needs of the stakeholders, first and foremost the students. (Bucher 2012, 94) The two core definitions of the Analytical Quality Glossary (Harvey 2004-14) below do not reflect this difference in meaning as you can see. We nevertheless will adopt this differentiation in our module text books.

(Quality) Assurance

„Assurance of quality in higher education is the collections of policies, procedures, systems and practices internal or external to the organisation designed to achieve, maintain and enhance quality."
Source: Harvey (2004-14). Continue reading online...

Quality Management

"Quality management is the process, supported by policies and systems, used by an institution to maintain and enhance the quality of education experienced by its students and of the research undertaken by its staff."
Source: Harvey (2004-14). Continue reading online...

2.1.3 Quality Control, Assurance, Enhancement & Improvement

Control, assurance, enhancement, improvement, all of them are addressing quality in different ways. They can be all part of the quality management of a higher education institution and are connected to the different quality notions we have introduced in Chapter 1. The same accounts to EQA instruments and mechanisms, where some might be stronger oriented towards quality control and others towards enhancement.

Quality control is the fundamental quality mechanism that checks and measures outputs and aims at eliminating non-quality at the end of a process. It focuses on inspection and is mostly about measuring output according to standards with the goal of finding defects. The emphasis relies on assessing whether a pre-set threshold level of quality has been met. Quality control should not be misunderstood as an external control function in the sense of accountability.

Quality Control

„Quality control is a mechanism for ensuring that an output (product or service) conforms to a predetermined specification."
Source: Harvey (2004-14). Continue reading online...

By contrast **quality assurance** (see Chapter 2.1.2) emphasises the "doing it right the first time" and therefore is a set of techniques that not only look at the output level but also at the input and process level. Quality assurance, takes measures in order to make sure that the desired quality and goals are present as an output/outcome and this from the very beginning and planning stages.

When we speak of **quality improvement** and **enhancement** (some might also say development), we speak of measures that address the quality notion of transformation and therefore focus on continuous quality improvement and enhancement.

(Quality) Improvement

„Improvement is the process of enhancing, upgrading or enriching the quality of provision or standard of outcomes."
Source: Harvey (2004-14). Continue reading online...

The difference between improvement and enhancement is very subtle on the institutional or programme level: for example improvement of a programme would make the existing programme better, whereas enhancement of a programme would mean to add something to the existing programme to make it better. Both can be seen on the same hierarchical level, meaning that one cannot say if improvement is better than enhancement in that case. They are often used interchangeably.

(Quality) Enhancement

„Enhancement is a process of augmentation or improvement."
Source: Harvey (2004-14). Continue reading online...

Quality enhancement however, also refers to the enhancement of the individual learners, affecting changes in them and thereby enhancing them. This understanding is often put on a level with the enhancement of the institution or programme. By doing so, it is taken for granted that the enhanced quality of educational provision and learning experiences also affect the learner, thus making it an indirect process of enhancement. (Harvey 2012, 26)

Should a HEI concentrate on one of these quality components and which one is "state of the art"? There is no right or wrong in choosing one of these purposes and measures. If your institution is new to quality management, it could be good to start by implementing quality control mechanisms first before directly diving into quality improvement and enhancement. Surely there are certain hierarchical aspects by which quality improvement and enhancement should be the institutional focus in their quality management. Nevertheless, quality control, assurance, improvement and enhancement should all be seen as options and considered case by case. They can be aggregated to pursue certain intentions and goals best adapted to the institution and its context. Figure 4 emphasises quality management being an aggregate of quality control, assurance, improvement and enhancement. It depicts that quality control is part of quality assurance and quality assurance part of quality improvement etc., but that it is not the case the other way around.

Figure 4 *Different mechanisms of quality management*

Questions & Assignments

1. What is the difference between quality control and quality assurance?
2. How do you define quality management?
3. Which quality mechanism is your own institution mainly pursuing? Please elaborate and define what the next step would be.

Further Reading

- Harvey, L. (2004-14). *Analytic quality glossary.* Quality Research International. Retrieved on January 22, 2015, from http://www.qualityresearchinternational.com/glossary/
- Vlăsceanu, L., Grünberg, L., & Parlea, D. (2007). *Quality assurance and accreditation: A glossary of basic terms and definitions.* Bucharest: UNESCO-CEPES.

2.2 Origins of the Quality Talk and Quality Assurance Concept

Quality and the medieval craftsmen

The first signs of dealing with quality can be found as far as hundreds and thousands of years ago. In 13th century Europe, medieval craftsmen started organising themselves in guilds and developing procedures for product and service quality. At that time products were inspected and first marks of inspection and of quality introduced. (Fisher & Nair 2009, 2) It was common practice for the workers to decide themselves if a part in the assembly was acceptable or not. Generally the product was inspected after completion and if not judged acceptable, it would be reworked before being reassessed. (Hinckley 1997, 874) Figure 5 below shows how the process, which is partly still in use today, could look like.

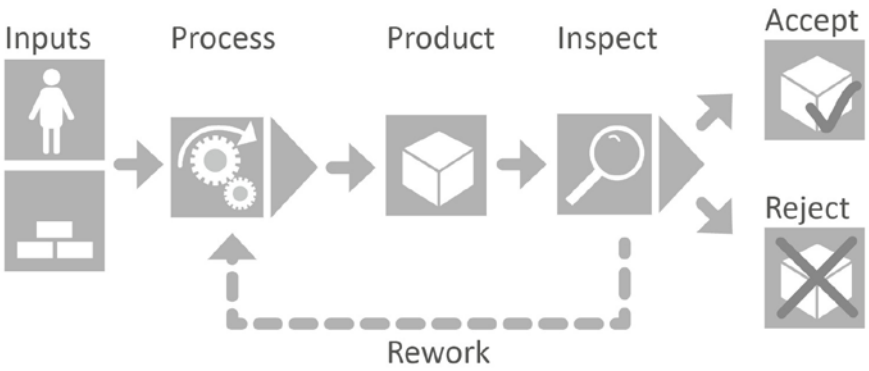

Figure 5 *Quality control process as used by craftsmen in the early 1900 (adapted from Hinckley 1997, 874)*

Industrial Revolution & division of labour

This model was generally followed until the Industrial Revolution. With the advent of industrialisation in the early 1900s, mass production led to the factory system and a total new way of dealing with quality: craftsmen became factory workers and work was divided into specialised and repetitive tasks. (Fisher & Nair 2009, 2) The individual craftsmen were no longer masters of a whole product and they could not check the quality themselves anymore, which was a fundamental feature of the craft. The craftsmen vouching with their name for the quality of a product, as we still know it today mainly from advertising, disappeared. (Sallis 2002, 5)

Inspection system: quality control

The main aspect of quality at that time was on how to ensure that products conform to clear specifications and that there is no or only minimal variability between the same batch of products. Under the scientific management approach developed by F. W. Taylor (1856-1915) this model was expanded in order to be more efficient. The role of workers to assure quality became less important and inspection departments became increasingly important. (Fisher & Nair 2009, 2 et seq.) These developments formed a detailed inspection system known as quality control which was however still an end-of-the-line inspection, but more efficient. Still quality control and inspection are increasingly seen as uneconomic and wasteful as the workers are not included and possible damages are only seen when it is already too late. (Sallis 2002, 5 et seq.)

Four stages of handling quality:

Conti et al. (2003, XIV et seq.) have divided the developments in handling quality into four stages of learning which they align with the rise of new business models. They give a good overview of the developments from the 1900s, starting from F. W. Taylor and quality control to today:

End-of-production line test

1. The first stage was the basic business model for mass production as described above. In contrast to the earlier craftsman model, items were assured in batches with use of statistical sampling method instead of each by its own. This became to be known as quality control and was based on the scientific management principles of F. W. Taylor who made the underlying statistical discoveries of statistical sampling.

In-process management

2. The second stage introduced the principle of prevention, testing quality in the process of production as it saw the end-of-production-line test as no longer efficient. Previously, when products failed the inspection they had to be reworked, losing valuable time to do the corrections. Now, with the chart and process management of Shewhart´s statistical process control (SPC), defects were discovered right where they happened, providing the fundaments of quality engineering.

Inclusion of customer perspective

3. The third stage included the customer in the definition of quality, because merely having a working (non-defect) product did not equal market success. The new focus has its origins in Japan, where it was of major importance to have the product right from the customer's point of view.

Involvement of the whole organisation (TQM)

4. The fourth stage was a more holistic approach and involved the whole organisation for quality management. The idea behind it was, that it was not possible to put the responsibility of quality only on the shoulders of the workers. New tools for the whole company where introduced with Feigenbaum's concept of total quality management (TQM). This new concept led to a strong economic growth in Japan after World War II. TQM was further developed since then, including among other things ISO 9000 standards for the quality management system and statistical tools and methods for process analysis due to the advent of Six Sigma[4].

The first to third stages see quality in a narrow sense, equating it to meeting requirements of the producer or customer. The fourth stage Conti et al. (2003) describe, has been deployed since the late 19th century, when quality began to refer to the way an enterprise defined its business, with a theory behind it. Quality acted as a guiding principle for behaviour with use of the knowledge and knowhow needed for it. From the current view point it is difficult to understand how quality could be achieved efficiently without control charts and other associated statistical methods to assure the processes before that (Fisher & Nair 2009, 2).

The quality movement today can be seen to incorporate all the elements summarised above to a system level that bears in mind the stakeholders involved (Conti, Kondo, & Watson 2003, XV). Figure 6 gives you a short overview of the history of quality management and depicts the hierarchy of quality concepts.

4 Six Sigma is a quality assurance model introduced by Motorola in the 1980s which is widely used in industry and focuses on process and product improvement with statistical tools and techniques. The term Six Sigma stands for 3.4 defects per million opportunities (DPMO) in statistics. (Coronado & Antony 2002, 92) One major shortfall of Six Sigma has been seen in the lack of theory and research beyond case studies, which Schroeder et al. (2008), however, have attempted to address.

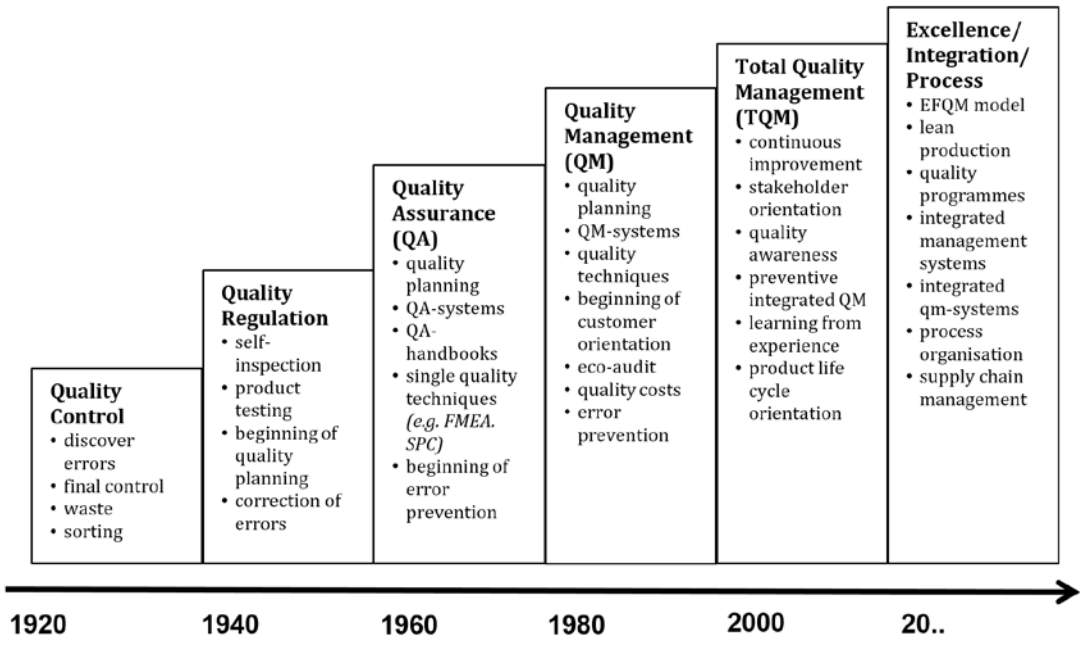

Figure 6 *History of quality management (adapted from Zollondz 2011, 27)*

2.3 Quality Assurance in Higher Education

Historically, quality assurance is a quite new phenomenon in higher education in comparison to industry and the economic sector. Academics in higher education research are in disagreement about when quality (not assurance) was considered in higher education institutions. Some argue it has always been an element of academics' professional responsibilities, others say it only emerged in the 1980s and others again see the interest of higher education institutions in quality since the middle ages as a sort of ethos of the profession. (Bernhard 2014, 40)

The following subchapters will introduce typical and traditional ways how quality in higher education was assured, and then summarises the factors that led to new forms of assuring quality from the 1980s to the present day.

2.3.1 Traditional Ways of Assuring Quality and Standards

In the past, many academics, the public and ministries took it as granted that universities deliver quality, higher education access being only for a few chosen ones, for a small elite. Furthermore, higher education institutions themselves did not see the need to question their work, it being backed by the art of science and thus a traditional view of quality (see Chapter 1.1.2). Quality in higher education was seen, and is partially still seen today, as something not measurable and only to be recognised by academics themselves (Campbell & Rozsnyai 2002, 15). Academics were more used to judge the quality of others (the students and colleagues) rather than having their own teaching and work be judged. This does not mean that there were not mechanisms, practices and techniques on how to handle and improve quality in higher education institutions before (Dill 2010, 377).

In many countries quality was, and in some cases still is, traditionally assured by the regulation and control of the state, specifically from the national ministries of education. New study programmes are thereby approved by ministries and granted existence by bureaucratic means (Altbach, Reisberg, & Rumbley 2009, 52; Schwarz and Westerheijden 2004a, 30).

State approval & control

The traditional way is not the same in every country, but in essence with it higher education institutions are strongly steered by the state. Besides the approval of study programmes as mentioned, ministerial staff set the outlines for the learning of students and work of academics including for example the prescription of content, student examination practices and setting the workload that has to be accomplished by the students. Other state steering methods are done with yearly line item budgeting, giving civil-servant status to staff and thus having control over their qualifications as well as a regulation of the student admission. (Martin & Stella 2007, 27)

With the traditional way of assuring quality, higher education systems were mostly nationally focussed and therefore restricted in size and scope. Under these circumstances national standards can be easily set and reached (Altbach, Reisberg, & Rumbley 2009, 52). The state more or less vouched for the quality of higher education: In that regard there was no strong stakeholder to question quality in higher education, and academics did their own work coping with (or working around) the regulations set by the ministries, while ministries decided (or still decide) to varying extent, about which study programmes to offer and which content these should have.

Generally, the traditional way of assuring quality with bureaucratic control focuses on inputs (see Chapter 1.2.1), whereas the new forms of quality assurance with instruments like evaluation and the sub form of accreditation, can focus on input, process and output (Schwarz & Westerheijden 2004a, 12) as well as outcomes and impacts.

2.3.2 Trust and Accountability – New Public Management and the Evaluative State

Rise of NPM & evaluative state

In recent decades there has been a loss of trust in public institutions, and especially in higher education institutions. Reasons are to be found, among others, in massification which lead to a diversification of higher education and its outcomes followed by a fall of prestige. A further driving force for the loss of trust was the state regulation with new market instruments and the advent of new public management (NPM) that questioned the quality of higher education institutions and called for accountability. (Amaral & Rosa 2010, 59 et seq.) NPM is the underlying idea behind the drift from traditional state-controlled higher education steering to new forms that shift the emphasis to a stronger self-regulation and self-steering of the institutions. With that, the promise of more institutional autonomy was made. What HEIs received was though, not only the gift of autonomy, but a strong call and request for more accountability to the government and society at large in exchange. (Schwarz & Westerheijden 2004a, 33) The shift from the traditional regulation to a framework policy has been further a shift towards a market and stakeholder driven model and can be mainly seen in Europe but also in other parts of the world. (Bernhard 2014, 41)

According to Pollitt (1995), NPM comprises a kind of 'shopping basket' from which countries choose elements to modernise their public sector with the result that different mixtures and elements are present in different countries (see box below).

The Evaluative State

Under these circumstances in the 1980s, Neave observed the rise of the Evaluative State. The higher education systems had increased in complexity and had to be more flexible in adjusting to changes. This was not possible to be accomplished with the traditional centralised systems which overlooked and controlled institutions with strict regulations. The evaluative state is thus a reaction and part of the experimentation of policy-makers to find new flexible and less bureaucratic ways and mechanisms that allow institutional change in less time. (Amaral & Rosa 2010, 59 et seq.)

Neave (1998), in his model, argues that wherever there is public control over public institutions there is also a form of evaluation. Evaluation can show itself in the routine of institutional reporting on expenses or on student numbers and alumni requested by governments through guideline laws, decrees and alike to control institutions. State control is nowadays seen as bureaucratic and inefficient to assure the ability of institutions to meet stakeholder requirements and economic and social demands in a complex higher education system with much needed flexibility and the ever growing competition of the learning society. The market by contrast, is often seen as the answer to the new challenges. (Neave 1998, 266) The Evaluative State was observed in the late 1980s and seen as a way to try to go beyond the traditional state control we have portrayed at the beginning of this chapter, in search of more precise and fast responses from higher education institutions to allow better judgement and guidance and allow better and faster institutional adaptation to change. It was an alternative concept to the traditional regulation and steering. However, remote steering, self-regulation and ex facto control still co-exist in the Evaluative State. (Neave 1998, 282)

Elements of New Public Management according to Pollitt (1995)

- "Cost cutting, capping budgets and seeking greater transparency in resource allocation (including activity or formula-based funding and, most recently, a shift to accruals accounting).
- Disaggregating traditional bureaucratic organizations into separate agencies ('executive agencies'; 'government business enterprises'; 'responsibility centres'; 'state owned enterprises', etc.) often related to the parent by a contract or quasi-contract ('performance agreement', 'framework document', etc.).
- Decentralization of management authority within public agencies ('flatter' hierarchies):
- Separating the function of providing public services from that of purchasing them.
- Introducing market and quasi market-type mechanisms (MTMs)
- Requiring staff to work to performance targets, indicators and output objectives (performance management).
- Shifting the basis of public employment from permanency and standard national pay and conditions towards term contracts, performance-related pay (PRP) and local determination of pay and conditions.
- Increasing emphasis on service 'quality', standard setting and 'customer responsiveness'."

Source: Pollitt (1995, 134)

2.3.3 New Forms of Quality Assurance

The rise of new quality assurance practices started in the United States of America (USA). As one of the first states with mass higher education in the 1980s, the USA set regulations that required public financed higher education institutions to develop teaching assessments. France followed with new policies in 1984 with the United Kingdom and the Netherlands just shortly thereafter in 1985: the French wanted to reduce bureaucracy in their quality assurance system, the United Kingdom wanted to build a better link between the labour market and higher education and the Netherlands implemented a new framework of QA for regulating and supervising HEIs. These changes then slowly spilled over to other European countries, Asia and around the world. (Dill 2010, 378 et seq.)

New form of QA introduced world-wide

Quality assurance in higher education had been implemented in almost all nations at the time of the UNESCO World Conference on Higher Education in 1998. Mostly, the focus was to evaluate the quality of the institutions and programmes of higher education but the systems varied substantially. This changed in the 2000s with many countries implementing comparable external quality assurance mechanisms and frameworks in order to validate their own higher education system and to support student mobility, joint-degree programmes and recognition of professions. (Altbach, Reisberg, & Rumbley 2009, 51) One of the best examples for such an implementation on regional level is the Bologna Declaration (1999) and with it the process started by the European Union with its main intent of the European Higher Education Area (EHEA).

From ex-ante to ex-post

Generally, a near universal shift can be observed in higher education quality assurance, which went from establishing standards and regulations beforehand (ex-ante) to measure and evaluate the output and outcomes afterwards (ex-post) (Altbach, Reisberg, & Rumbley 2009, 52). Figure 7 below shows a comparison made by Jongbloed (2003) that explains and simplifies the shift: he compares the traditional regulation with a crossing with traffic lights that regulate the traffic (the input), whereas the new state supervision is compared with a roundabout, which gives a framework where institutions can move freely as long as they deliver the wanted output and outcomes which could be seen in the exit roads.

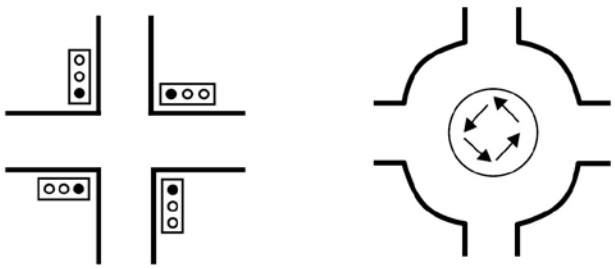

Figure 7 *Coordination systems: the crossing versus the rounded (Jongbloed 2003, 130)*

The next chapter will elaborate on further external drivers that called for implementation of new quality assurance forms and underline the need of higher education institutions to engage in quality assurance and implement it.

Questions & Assignments

1. Describe the origins of quality assurance and their different stages.
2. Why did the new forms of quality assurance emerge in higher education?
3. What form of external assurance of quality is predominant in your country?
4. Can quality assurance as experienced in economics and production, be a model for higher education in your opinion?
5. Please describe state regulation of higher education in your country, and discuss how autonomous your institution is and how much autonomy it needs.

Further Reading

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2.4 Motives for Quality Assurance – Why Engage in Quality Assurance?

Higher education has many new and rapidly changing challenges such as globalisation, technological development, social and political transformation, the concepts of lifelong learning and of a knowledge-based society. On the other hand, higher education is not only faced with challenges; given the key importance of it in our times, many new opportunities have emerged (Bernhard 2014, 39).

With all the demands and requirements higher education institutions have to fulfil, one might ask why quality assurance should be one of them: why is it important and what it is useful for? There are many reasons why institutions should do more than policy makers expect them to do in regard to quality assurance. We will further elaborate the most important intrinsic and extrinsic motivations higher education institutions (could) have to engage in quality assurance. These reasons can vary from institution to institution.

2.4.1 More than Accountability and Control

In the very diverse setting of higher education institutions, where individual academics pay much attention to their freedom, not everyone sees the need for quality assurance. Often it is argued that higher education has produced quality for hundreds of years and that quality has always been there even without quality assurance. So why commit to what might seem a lot of paperwork and effort on top of all the duties that are

already present? For the traditional forms of quality assurance it was often argued that bureaucrats are not able to define or judge the quality of their teaching, programme and so on. We could list many more arguments that are commonly used against quality assurance.

Criticism has always to be addressed and should not be neglected by external and internal QA. If you compare new forms of quality assurance to traditional state regulation (see Chapter 2.2) in the case of the last criticism example above, you will find that some of the new forms of quality assurance are addressing them: instruments like accreditation make use of peers who are from academia to assess study programmes instead of relying on ministerial decisions on curricula etc..

QA is more than accountability

As an answer to why you should engage in quality assurance, we could just tell you that there is just no way around it for higher education institutions in most countries. Given the importance of higher education for society and the economy as well as the high amount of public funding, higher education institutions need to be accountable to the state and society at large. State supervision with compulsory forms of accreditation and standard assessments, as we have learned, are the reality in many countries nowadays and institutions have to abide to external quality assurance and show they have quality assurance practices in place. Public institutions are accountable to the state, not only because public money is used but also because of the general importance of higher education for society.

To understand how and why quality assurance can be good for the individual, the programmes, departments and the institution, one must reflect on the reasons and goals behind external and internal quality assurance without only seeing the control mechanisms. The emphasis of reflection should be about what quality assurance could do for your own institutional (etc.) goals. It is important to understand, that quality assurance is not only about accreditation and means of control by ministries or superiors. It can be part of the strategy and the steering processes of a higher education institution (see Module 5) in order to address new challenges and requirements of higher education which are growing and changing at a fast pace.

QA in exchange for more autonomy & freedom?

The new forms of external quality assurance with instruments like quality assurance frameworks and accreditation can lead to more autonomy and freedom from state regulation. For once it is crucial that in comparison to traditional higher education regulation (see Chapter 2.4.1), the institutions can, within a certain framework, define quality for themselves and do not have to silently abide by external regulations. This can be seen per se already as a gain of more freedom and autonomy.

The next chapters will more deeply analyse why quality assurance is receiving a lot of attention in higher education and answers why higher education institutions should and have to engage in it.

2.4.2 Impacts of Globalisation

QA as response to globalisation challenges

Globalisation is constantly changing the world we live in through economic, technological and social forces. New ways of thinking, living and working emerged with more technological, flexible and market-driven approaches. In the area of higher education some of the most important impacts can be seen in

> *"advanced information technology, new ways of thinking about higher education financing, opening up for market forces and commercialization, unprecedented mobility for students and professors, the global spread of common ideas about science and scholarship, [and] the role of English as the main international language of science"*
> ***(Altbach 2008, 2)***

These impacts are leading to new contexts, functions, expectations and external demands of higher education institutions which are not directly controllable by anyone (Altbach, Reisberg, & Rumbley 2009, 23). Internal and external quality assurance systems can be a way for HEIs to adapt to a steadily and rapidly changing world and to assure that quality is delivered.

With globalisation, different challenges to higher education institutions and especially to the quality of higher education have arisen. Assuring quality and giving it a key role, allows institutions to reflect on its goals, constantly evaluate its own doing and therefore being more competitive and more flexibly adaptable in a globalised world with a growing common labour market, a growing need to widen access to higher education, with rising student mobility and challenges such as "brain drain"[5] for some countries, a very diverse student population, massification or more generally changes in the demography.

2.4.2.1 Massification, Widening Access and Diversification

QA as response to massification

The United States of America were the first to experience the massification of higher education in the 1920s. Europe (1960s) and parts of Asia (1970s) followed thereafter making mass higher education systems a global phenomenon. The growth in student numbers can be seen worldwide nowadays and there is no sign of it stopping if seen on a global level. (Altbach 2008, 3) The national frameworks of higher education have been radically reformed since then (1990s). With human capital being an increasingly crucial factor for economic development and competition worldwide, many countries shifted their higher education systems from an elitist one, granting access only to a chosen few, to a democratised mass higher education system. (Dill 2010, 377)

> *"Significantly, the idea of mass access to higher education has meant unprecedented expansion of higher education everywhere - there are about 134 million students in postsecondary education worldwide, and many countries have seen unprecedented and sustained expansion in the past several decades. These global trends are for the most part inevitable. Nations, and academic institutions, must constructively cope with the implications."*
> ***(Altbach 2008, 2)***

Massification is driven by demographics and growing percentages of students completing secondary school with the plan to enter higher education. (Altbach, Reisberg, & Rumbley 2009, 67)

5 "Brain drain" is a term for the inequality of exchange in knowledge between countries mostly towards the west. Students study abroad to gain new knowledge and instead of going back to their home countries to support the economy and political system, they remain abroad. (Job & Sriraman 2013, 83 et seq.) Altbach (2008) argues that with globalisation it "has become more of a "brain exchange", with flows of both people and knowledge back and forth across borders and among societies" (2008, 3 et seq.), although brain drain remains a reality for most of the African countries.

A result of massification and widening access is the diversification of students (Altbach, Reisberg, & Rumbley 2009, 100 et seq.), coming from different backgrounds, with different knowledge starting points, ideas of study and goals. This diversification is most probably going to be growing even more because of the needs of a global labour market and the desire and need for life-long learning, for which higher education institutions are opening (or need to open) their doors to all ages and life situations.

QA as response to dwindling finances

Massification has further led countries and therefore institutions to face budgetary challenges, as it has driven up unit costs for instruction and research. This on the other hand has led to (part) privatisation of institutions and the need to find new sources of income such as (higher) students' fees, third-party funding, services for economy and industry. (Altbach, Reisberg, & Rumbley 2009, 67, 87) With the increased demand many private institutions have emerged, often welcomed by governments because it allowed them to reduce or hold public funding for higher education constant. Although the percentages of private higher education institutions vary strongly country by country, it raises competition in higher education but also brings up the question of quality, especially in for-profit institutions. The same challenges apply to e-learning and distance learning in general, which have been growing thanks to globalisation and further development of information and communication technology (ICT). (Shin & Harman 2009, 6 et seq.) Distance education is important to fulfil the high demand for higher education which grew due to massification in some countries, for example in Africa, Latin America and the Caribbean, the Middle East and eastern/central Europe. However, on the other hand, there is the major challenge of questionable and illicit providers of higher education, so called degree or diploma-mills[6]. Even where external quality assurance systems are well in place, such mills do exist due to the lack of cross-border regulations, as they operate from other countries without regulations and are not under the jurisdiction of the student's country (Altbach, Reisberg, & Rumbley 2009, 123–134). Because of this, e-learning and distance learning are, on the one hand, very challenging to states and quality assurance, but also harmful to legitimate distance education providers and higher education in general on the other hand (Piña 2010). Private and distance education are a further competitor for traditional higher education institutions in a globalising market. A strong focus on quality can be very important for some institutions (be they private, public or distance) in order to survive.

QA as response to illicit providers

QA as response to more heterogeneous student body

Another effect of massification was that students, professors and the institutions alike, became more heterogeneous (Trow 1996, 11 et seq.). The academic profession is nowadays very diverse, segmented and hard to describe, with differences to be found in working conditions, salaries, academic qualifications etc. (Altbach, Reisberg, & Rumbley 2009, 90). As Trow (1973) has argued, massification in higher education does not only mean a rise in student numbers but has also lead to a growing diversification of the student population and academia in general. This brings ever new challenges to higher education institutions which have to address very diverse learners with different predispositions when starting their studies and different learning types and paces, goals and expectations.

Massification has changed everything in the higher education institutions, from the professors, the students, curriculum and methods to the social meaning of higher education (Trow 1973, 6). To engage in the question

6 A diploma-mill is a wide term referring to higher education institutions that range from awarding degrees for substandard academic work and effort to selling degrees. (Piña 2010, 121 et seq.)

of quality and use mechanisms of quality assurance gives higher education institutions the chance to cope with the diverse student groups and the rapidly growing and changing external demands. Quality assurance instruments can help to address the challenge of delivering quality under these circumstances and to maintain certain quality standards, by identifying the diversity and addressing it, thereby promoting change in the institution.

Many consequences of massification and especially the diversification led to a loss of trust in higher education by the states and the public (Amaral & Rosa 2010, 60), which was confronted with new phenomena and challenges and more diverse requirements. With new needs coming from globalisation and massification, a demand for new practices for quality arose along with other needs such as finding a good financial balance and adjusting to the labour market (Bernhard 2014, 28). The situation has profoundly changed how states and higher education institutions relate and has led policymakers to seek and develop new external quality assurance practices (Dill 2010, 377).

QA as response to declining demographics

In contrast to the globally seen massification, some developed countries are in a stage facing demographic challenges in another way due to an ageing population. Instead of a further massification, to fulfil the needs of the labour market, they are experiencing a decline of demography which translates into less traditional students between the ages of 19-24 attending higher education institutions. While between 1960 and 1980 enrolment rates in Europe increased by ten times, nowadays many countries have to seek to open their institutions to so called non-traditional students[7] and search for new student paradigms (Altbach, Reisberg, and Rumbley 2009, 99 et seq.; Enders et al. 2011, 71 et seq.). This can be even more difficult, if institutions have to compete globally and with cross-border providers.

Further Reading

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7 "Non-traditional students" refers on the one hand to traditionally excluded social or educational groups like working class members, immigrants or women but on the other hand to older students who access HE with vocational training, work experience or any other unconventional educational prerequisite. Thus, the traditional students differ from country to country, but the non-traditional ones too. For example the access of women to HE in most developed countries could be judged to define women as traditional students wadays, whereas in other countries it is still not the case. If you look at single programmes or institutions etc. this view could be easily destroyed, due to the fact that women are still strongly underrepresented at this level. (Schuetze & Slowey 2002, 311–315) Generally in this chapter we see the term in the context of widening the access to higher education with the logical consequence of breaking down barriers and adapting to a more heterogeneous student body for the higher education institutions.

What are the consequences of massification for higher education?

Altbach (2008) discusses five main consequences:

Impact of massification on HE

1. "Public good vs. private good. Stimulated in part by the financial pressures of massification and also by broader changes in economic thinking, including the neoliberal agenda, higher education is increasingly considered in economic terms a private good—a benefit accruing mainly to individuals who should pay for it rather than a public good that contributes benefits to society and thus should be financially supported by the state".
2. "Access. Postsecondary education has opened its doors to previously excluded population groups—women; people from lower socioeconomic classes; previously disadvantaged racial, religious, and ethnic groups; and other populations. While many countries still contain disparities in enrollment, massification has clearly meant access and thus upward mobility and increased earning potential. Access also greatly expanded the skills of populations, making economic expansion possible".
3. "Differentiation. All mass higher education systems are differentiated systems. Institutions serve varied missions, with differing funding sources and patterns and a range of quality. Successful academic systems must ensure that the various segments of the system are supported and sustained. While research universities need special attention, mass-access institutions do as well".
4. "Varied funding patterns. For most countries, the state has traditionally been the main funder of higher education. Massification has placed great strains on state funding, and in all cases governments no longer believe they can adequately fund mass higher education. Other sources of funding need to be found—including student tuition and fees (typically the largest source), a variety of government-sponsored and private loan programs, university income generating programs (such as industry collaboration or consulting), and philanthropic support".
5. "Decline in quality and conditions of study. On average in most countries, the quality of higher education has declined. In a mass system, top quality cannot be provided to all students. It is not affordable, and the ability levels of both students and professors necessarily become more diverse. University study and teaching are no longer a preserve for the elite—both in terms of ability and wealth. While the top of a diversified academic system may maintain its quality (although in some countries the top sector has also suffered), the system as a whole declines".

Source: Altbach (2008, 3)

2.4.2.2 Internationalisation of Higher Education – Competition, Mobility, Mutual Recognition and (Regional) Common Spaces

QA as response to growing global competition

Although there is massification and in many countries a growing student body, one of the main consequences of globalisation for higher education institutions is that competition rises. Quality assurance can be key for the survival of institutions and in further attracting students. By 2025 it is estimated that over 8 million students will study abroad and the global circulation of academics is increasing day by day (Altbach 2008, 3). Globalisation has made internationalisation and cross-border education of higher education an important factor for higher education institutions in many regards. Most higher education institutions have been setup in national political frameworks and are used to meet the needs of the domestic economy and culture (Damme 2001, 416). Today to be competitive, institutions need to internationalise and adapt to external influences of globalisation be it with internationalisation strategies 'at home' or 'abroad' (Knight 2003, 24 et seq.), meaning activities on their own campus or abroad and across borders.

QA to support mobility & recognition

With student mobility growing year by year and increasing numbers of cross-border education (franchise, branches and double/joint degrees) or even virtual institutions, quality issues are a challenge of internationalisation. Between 2000 and 2012 the number of foreign students in tertiary education more than doubled (OECD 2014, 361). Student mobility, but also the mobility of graduates has raised the question of recognition, the comparability of student achievements (credit transfer) and degrees. In an increasingly competitive world, higher education institutions need to enable their students to study and work abroad. On the other hand, HEIs need to be attractive to international students to compete for the best students.

With internationalisation as a response and catalyst for globalisation (Knight 2003, 77) very diverse states, institutions, labour markets and professional bodies need to build trust and mutually recognise their goals and mechanisms and make them comparable. Generally, mobility and recognition depend on the states and existing external frameworks (for mobility, credit transfer, academic and professional recognition) or mutual agreements between states and accrediting bodies or the higher education institutions. All these mechanisms though, build upon internal quality assurance and transparency of the higher education institutions, who, in short, have to prove transparently that their quality is high and comparable.

An example of mutual recognition is the Washington Accord (International Engineering Alliance 2014), an international agreement between accrediting engineering bodies, mutually recognising engineering qualifications and professional competences of the programmes accredited by the signatories.

On a regional level, the Bologna Declaration is an example of the importance of quality assurance mechanisms and guidelines to promote and implement mobility and mutual recognition in a regional common space, the European Higher Education Area (EHEA - see Chapter 3.1.1). The EHEA has a common quality assurance framework (QAF) and qualifications framework (QF) to support mobility and mutual recognition (see Chapter 3.1). Likewise, with the integration process of the Association of Southeast Asian Nations (ASEAN), the member states are expected to have mutual recognition implemented (see Chapter 3.1.2) and the Inter-University Council for East-Africa (IUCEA) is as well in the planning stages of a common qualifications framework.

The major influence HEIs have on questions of recognition, is solid quality assurance work, transparency and alignment to existing national or supranational frameworks in order to allow mobility and mutual recognition. Other than that strategies can be to choose a special accrediting agency for a certain study programme which allows mutual recognition and signing cooperation-agreements with single institutions for student exchange. Much depends on the states themselves, if an external framework and agreements exist or not, but the trend is towards regionalisation and internationalisation in that regard. Solid ground work and engagement in QA is the basis for transnational recognition and creates trust between nations and HEIs as well as recognition from the labour market. Internal quality assurance systems are indispensable, in order to make one's own quality transparent to others and make standards comparable.

Quality assurance is key to building the needed trust and standards to allow mobility and recognition across borders and is therefore also a crucial mechanism for common higher education spaces. With such common spaces and mutual recognition agreements, student and graduate mobility can be achieved, and institutions are expected to have a reduced workload in aspects of student mobility (Hou 2012, 913), as they would not need to approve or assess student achievements and degrees.

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2.4.3 The Concept of Higher Education Institutions as Learning Organisations

QA to facilitate learning & continuous transformation

One reason to engage in quality assurance that could be set for all higher education institutions is the intrinsic motivation of organisational development to survive in a changing environment. One concept of knowledge and change management that has gained much attention over the last decades is the concept of learning organisations.

The term might lead to confusion though. The learning organisation has to be understood in the light of organisational learning and not to be confused with a learning institution, which every higher education institution is per se. Just because an institution provides learning, it does not mean the organisation itself has organisational learning. (Lawler & Sillitoe 2013, 495 et seq.)

Pedler et al. (1991) define the learning organisation as follows:

> *"An organisation which facilitates the learning of all its members and continuously transforms itself"*
> ***(Pedler, Burgoyne, and Boydell 1991, 1)***

A simplistic way of tackling organisational learning is to have a system and procedures that support their institution in learning from own and others work processes, challenges and mistakes. The emphasis here relies on doing this continuously. (Lawler & Sillitoe 2013, 495) Calling it a system means that supporting structures and methods exist for the continuous evaluation and improvement and thus learning of the organisation.

A second more advanced approach to organisational learning is at the individual level. It sees individuals, in the organisation being engaged in learning, deeply nested as a culture of the organisation. Staff workers and managers would be equally empowered and committed to the learning of the organisation by identifying, solving and learning from their own processes, challenges and outcomes (Lawler & Sillitoe 2013, 496).

But how can organisations learn? Does it work like the learning of individuals, which would mean seeing organisations as one cognitive entity or does it all begin from single individuals who function as multipliers?

Research about knowledge and learning in organisations is still at an early stage, but the shift is towards a new paradigm which analyses how organisations process information and generate knowledge instead of seeing learning in organisations as the process of acquiring, distributing and storing knowledge in the organisation. (Curado 2006, 4) Garvin (1993) proposes five main activities in order to stimulate organisational learning:

5 activities to stimulate organisational learning

1. **Systematic problem-solving:** relies heavily on the philosophy and methods of the quality movement and is thus another connection between quality assurance and the learning organisation. It means relying on scientific methods to diagnose problems such as the Plan-Do-Check-Act cycle (see Chapter 3.3.1), relying on hypothesis-testing and -generating methods (see Module 2), relying on data and not assumptions for decisions and using simple statistics to do so.
2. **Experimentation**: means to systematically search for and test new knowledge. In contrast to problem-solving, experimenting is not driven by difficulties of the moment but by expanding horizons and opportunities.
3. **Learning from past experiences**: review and evaluate success and failures systematically and record the lessons learnt, so that members of the institution can easily access this knowledge in order not to repeat past errors.
4. **Learning from others**: often new input and powerful insights derive from others outside their own working environment.
5. **Transferring knowledge**: is needed to multiply the acquired knowledge and thus lifting it up from just a local affair. It should be done quickly and efficiently through the organisation as ideas have stronger impact when broadly shared.

As we have seen there are many commonalities between the quality movement and the concept of learning organisations. The quest for quality and quality assurance can be one way to facilitate systematic learning in organisations. Evaluation and improvement can be key factors for higher education institutions in a complex and dynamic world with new challenges arising for higher education institutions. Quality assurance is thus also a way to secure their own existence and on the other hand to solve challenges and problems. As Curado (2006, 2) states, quality assurance as a method and system can be a unique sustained competitive advantage and foster strategic development for higher education institutions.

We have shown that there are many reasons and motivs for higher education institutions to implement quality assurance, be it because of their own interests or external requirements, demands or obligations. In order to be successful, and in some cases even to survive, institutions need to care about their quality. The following table is an attempt to summarise the reasons and motivs higher education institutions (could) have. The reasons and categories are not meant to be exhaustive nor mutually exclusive.

Summary of reasons and motives for QA/QM

Reason/Motive	Explanation
Learning Organisation & Intrinsic Motivation (Internally Driven)	
Maintain and enhance standards and quality	Quality assurance is first and foremost a way for institutions to maintain standards and continuously improve the standard of education, facilities, support etc.
Increase credibility and prestige	Quality practices and commitment help higher education institutions and the individuals in it to distinguish themselves from others gaining high credibility, and prestige.
Increase image and visibility	Quality affects your image and visibility. Both can lead to stronger stakeholder support (donations/grants/funding), the interest of students in your institution and of employers. Employer interest translates to a good placement of your graduates which further supports your image and visibility.
Increase staff motivation and morale	Focusing on quality and QA can maintain and increase the motivation and morale of your staff members through systematic processes and division of tasks.
Increase autonomy	Most higher education systems with new forms of quality assurance grant more autonomy for the price of quality assurance as a means of accountability. Institutions have more freedom and autonomy in developing the portfolio of study programmes and curriculum questions, for example. With instruments like accreditation that rely on peer assessments, institutions are also less dependent on ministerial/political will.
Increase internal transparency	QA can lead to more transparency in processes so that staff and departments are better informed about each other and synergies can be better used.
Be up to date, flexible and responsive	QA systems can keep your institution up to date and help to adapt to changing contexts.
Build trust	QA instruments, mechanisms and caring about quality in institutions builds trust from society, politics and the economy.

Reason/Motive	Explanation
Context and Accountability (Externally Driven)	
Be financially accountable	There is an increased demand for accountability due to the importance of higher education in the economy and society and the use of public and/or private funds. In exchange for accountability more autonomy and freedom are promised. Making quality visible and transparent is a means to be accountable to stakeholders.
Be socially, politically or privately accountable	QA can be an instrument to introduce and anchor social, political or private goals in the institution such as access, inclusion or mobility.
Stakeholder awareness	QA can systematically identify and address demands and requirements of stakeholders (students, alumni, parents, employers, etc.). With a globalised market for example, alumni are under stronger competition, which raises expectations of "employability" among students.
Increase outward-oriented transparency	QA can raise transparency of study programmes, the institution and the quality of education. This addresses demands of stakeholders and can lead to better functioning and more competitiveness, prestige and visibility.
Increase/implement internationalisation and mobility	QA instruments and mechanisms foster internationalisation of higher education being a fundamental tool to allow student mobility as well as mutual recognition.
Address increasing competition	Engaging in quality helps to be and remain competitive. Globalisation has increased competition for students and funds with other (transnational) higher education institutions, as well as new types of private providers of higher education and new modes of education such as e-learning.
Fulfil grown expectations	QA can help to face the growing range of expectations towards HEIs by identifying them and providing mechanisms and instruments to address them.
Address more heterogeneous student body	QA can identify and help to address the needs of a more and more heterogeneous student body that institutions are challenged with.
Cope with restricted budgets	Static or dwindling funding of public higher education leaves HEIs with less budget per student. With QA, resources can be used more effectively and efficiently.

Table 5 *Reasons and motives for higher education institutions to commit to quality and engage in quality assurance of teaching and learning – an overview (on the basis of: Campbell & Rozsnyai 2002; Schwarz & Westerheijden 2004a; Mishra 2007; Altbach, Reisberg, & Rumbley 2009)*

Questions & Assignments

1. Why is quality assurance important for higher education?
2. How have globalisation and massification changed your institution and what are the challenges you are confronted with?
3. What are the reasons for your institution to engage in quality assurance?
4. Think of different groups in your institution and their prejudices against quality assurance. How would you describe their arguments and group them?
5. Which arguments can you provide for each of these groups to have them engage in QA?
6. What would you say is the main reason (challenge, goal, context etc.) for your own institution to engage in quality?

Further Reading

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Chapter 3

Introduction to Quality Management Systems, Models and Instruments

How to Design a Quality Management System

On successful completion of this chapter, you should be able to…

- recognise the importance of national and regional EQA for internal quality management systems,
- weigh up the possibilities of designing and modelling internal quality management systems,
- describe the use of main quality assurance instruments and their differences,
- describe and apply the PDCA cycle and know its importance for QA.

3 Introduction to Quality Management Systems, Models and Instruments – How to Design a Quality Management System

In the first two chapters we have set the stage for quality and quality assurance with the definition of quality, the main terminology of QA as well as the origins and reasons for institutions to engage in quality assurance practices. The main goal of the third chapter is to concentrate on how to setup quality assurance at higher education institutions. We will depict different models, instruments and possibilities on how to design quality management systems in higher education institutions.

3.1 External Quality Assurance Systems – Frameworks for Internal Quality Assurance

The shift from the traditional ways of state approval in higher education to new forms of quality assurance has already been discussed in Chapter 2.2. EQA, especially the compulsory version, must always be considered when setting up and further developing a quality management system at HEIs in order to form as many synergies as possible and avoid duplication of work and resources.

External quality assurance systems are mostly nationally setup but there is a trend to regionally organise them, such as already implemented in Europe through the Bologna Process (see Chapter 3.2.1) or the cooperation and validation of academic decisions in francophone Africa under the roof of the African and Malagasy Council for Higher Education (CAMES) with study programmes which underwent accreditation to promote mobility in the 19 countries which adhere to it (Sanyal & Martin 2007, 8). In other regions a lot of effort has gone into regional harmonisation. For example in the ASEAN region, where a common higher education space is being promoted with quality assurance as a main mechanism (see Chapter 3.1.2).

In order to facilitate mobility and recognition, states and regions have or are implementing quality assurance frameworks and qualifications frameworks. These are two important examples of EQA that should be considered and referenced for the internal QA systems.

Quality assurance frameworks

Quality assurance frameworks (QAFs) are designed to give institutions an externally common set of tools and guidelines for quality assurance, teaching and learning improvement and academic standards. They can be on a national or regional level. The main purpose of QAFs is to make sure that higher education institutions have certain minimum standards of quality assurance mechanisms in place which make them comparable. Quality assurance frameworks do not usually set which mechanisms institutions should have, but provide a general guideline for institutions.

Qualifications frameworks

Qualifications frameworks (QFs) exist mostly on a national level but exist on a cross national level too, such as the European Qualifications Framework. QFs are not to be confused with quality assurance frameworks. They show all possible qualifications hierarchically with general descriptions of required achievements and their purpose is to support the design of curricula and study programmes, support mobility and the recognition of degrees and study periods (Vlăsceanu, Grünberg, & Parlea 2004, 68 et seq.). Further it is an instrument to make qualifications transparent to society and labour market as well as making them comparable between countries (see also Module 3).

Table 6 shows the different instruments used by the state to enforce external quality assurance and to influence academic standards. Dill (2010, 378) has divided the available practices in three driving categories: 1. Professional (self) regulation, 2. State (direct) regulation and 3. Market regulation.

EQA instruments & mechanisms

Locus of Authority	Professional (Self) Regulation	State/Regional (Direct) Regulation	Market Regulation
Practices	■ Professional accreditation and licensure ■ Voluntary institutional accreditation ■ External examining	■ Qualifications frameworks ■ Quality frameworks ■ Subject assessments ■ State-conducted accreditation ■ Academic audits ■ Performance-based funding or contracting ■ National examinations or surveys	■ Commercial information provision, institutional or programme performance data, assessments, and rankings

Table 6 *External assurance of academic quality (adapted from Dill 2010, 378)*

The table shows that there is a variety of external instruments that can be mixed. The challenge states are facing is to find the right mixture between self, state and market regulation[8] and develop an effective and efficient policy framework for higher education quality assurance and the assurance of standards. (Dill 2010, 379) HEIs need to fulfil whatever their resident country and residing region etc. expects and thus need to consider the bigger picture and integrate it in their own system.

After outlining case studies of regional quality assurance, we will give a quick overview on the most common and important instruments, namely accreditation, assessment and audits that form external and internal quality systems. All these instruments can be used in national, regional or international settings and can be part of the internal system of a HEI.

8 The instruments of the market regulation such as performance data, assessments and rankings will not be covered more in depth because they are not implemented by external quality assurance or national regulation bodies, but can only be reinforced by laws or supported by the states. They are nonetheless part of new external quality assurance forms and can be important especially because they can produce transparency. As in the case of rankings though, they have to be critically reflected in how far they give information on higher education quality and in how far they contribute to quality assurance, control or improvement.

Questions & Assignments

1. Which instruments does you compulsory EQA system in your country adopt?
2. Which mechanisms of the EQA system of your country do you see mainly for control and which for improvement?
3. Where do you see possible synergies and ties between the EQA system and your internal QMS?

3.1.1 External Quality Assurance in ASEAN

External Quality Assurance in the Changing Landscape of Higher Education in ASEAN

The emergence of external quality assurance (EQA) in the Asia Pacific region began in Japan, followed by the Philippines over half a century ago with the establishment of voluntary self-regulation by associations of universities or by private organizations. The rest of the South-East Asian nations formed their government-driven EQAs in the 1990s. The EQA systems in the ASEAN countries are at different stages of development. New EQA bodies are intended to support and be aligned with the changes in the national higher education policies and strategies, which have been outlined for nation-building endeavours - politically, socially and economically. The more mature EQA systems are geared to strengthening institutional accountability, effectiveness, efficiency and adaptability; that match the maturity-state of higher education system, address the ever-changing stakeholders' expectations and correspond to the dynamism of national strategies. There has been a notable wide-acceptance and practice, in many ASEAN countries, on inter-organizational shared responsibility in assuring quality of programmes, qualifications and institutions, involving ministries, quality assurance agencies, professional bodies and certification authorities. EQA systems in ASEAN countries vary in terms of mandate and policy dimensions; sector coverages; types of establishment; quality assurance practices –- programme/ institutions/ systemic; quality standards; use of peer assessors and types of decision. It is significant to recognise that the EQAs of the 21st century must have an intense commitment to ensuring that its National Qualifications Frameworks be underpinned by robust quality assurance and qualification systems. The international dimension of ASEAN EQA bodies is often based on the need to ensure that national quality-assured qualifications are recognized across borders.

The ASEAN Ministers of Education in 2008 recognized that EQA bodies must share responsibility and contribute towards establishing an ASEAN Higher Education Area which focuses on harmonization of the HE systems and the ASEAN agenda for integration and formation of an ASEAN Economic Community by 2015. National quality assurance systems are expected to inspire confidence and recognition from others on its qualifications and eventually facilitate student and worker mobility within ASEAN. This stance has been emphasized in many ASEAN dialogues with its trading partners -- Australia and New Zealand, plus-three countries (China, Japan and Korea), the East Asia Summit group and European Union through the Asia Europe Meeting (ASEM). This critical agenda has been addressed regionally through two landmark initiatives. First, an initiative facilitated by the SEAMEO RIHED on the formation of the ASEAN Quality Assurance Network (AQAN), which, amongst others, in 2011, was tasked to develop the ASEAN Quality Assurance Framework in Higher Education (AQAFHE) and engage in QA capacity building programs. The second initiative is the development of the ASEAN Qualifications Reference Framework (AQRF), a project supported by the Economic Cooperation Working Group of the ASEAN-Australia-New Zealand Free Trade Agreement, 2010. AQRF has been endorsed in principle by the ASEAN Ministers of Education and ASEAN Ministers of Trade in their respective ministerial meetings in 2014. The regional framework is expected to provide better system-wide and neutral connectivity between national qualifications and quality assurance systems in the region, which eventually will lead to the formation of a regional zone of trust for qualification comparability and community mobility. Other initiatives include studies on credit transfer systems Thus, the roles of EQAs in the ASEAN region, in the years to come, are expected to continuously undergo changes notably in the modes of cooperation, co-existence and co-creation as they strive to be in a better position to address institutional aspiration, national development, regional integration and inter-regional connectivity.

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3.1.2 External Quality Assurance in East Africa

Regional Quality Assurance Initiative on the Road to a Common Higher Education Area in East Africa – The East Africa Quality Assurance Initiative

As strategic institution of the East African Community (EAC) the Inter-University Council for East Africa (IUCEA) is responsible for the development and coordination of higher education and research in the region. In 2006, IUCEA started an initiative to develop a regional quality assurance framework for East Africa. This initiative was founded on an African-European partnership with the German Academic Exchange Service (DAAD) and German Rectors Conference (HRK). The idea of a common quality assurance framework was to set regional higher education benchmark quality standards, based on international recognised standards and with it streamlining national and institutional quality assurance systems according to the regional needs and requirements.

A key milestone that has been achieved based on this initiative is the "Handbook for Quality Assurance in Higher Education", the so-called "Road Map to Quality". This handbook comprises four volumes, focussing on:

- Guidelines for self-assessment at programme level (Volume 1)
- Guidelines for external programme assessment (Volume 2)
- Guidelines for self-assessment at institutional level (Volume 3) and the
- Implementation of a quality assurance system (Volume 4).

The four volumes can be downloaded from the IUCEA website: http://www.iucea.org/index.php?option=com_content&view=article&id=106&Itemid=238 (Retrieved on January 31, 2015)

The next step to become a common higher education area is the establishment of a regional qualifications framework in East Africa. The purpose of this framework is to facilitate the comparability and recognition of different qualification levels, credit systems and prior learning.

You can find further information about the current state on the IUCEA website "Developing a Regional Qualifications Framework for Higher Education in East Africa": http://www.iucea.org/index.php?option=com_content&view=article&id=317&Itemid=279 (Retrieved on January 31, 2015)

Solveig Randhahn (2015)

3.1.3 External Quality Assurance in Europe

Quality Assurance in the European Higher Education Area (EHEA)

The European Higher Education Area became formalised in 2010, 10 years after Bologna Declaration (1999) had initiated the process with 29-30 countries who voluntarily committed to regional harmonisation of higher education. Since then, different Communiqués expanded the objectives of the process. The main idea behind the so-called Bologna process is that higher education and life-long learning are crucial for the economic development of the area and thus need to be promoted. Today the process includes 47 countries.

During the implementation of the Bologna process, special emphasis was laid on quality and quality assurance which developed to one of its main goals. In 2003, the Berlin Communiqué included the promotion of quality assurance into the objectives of the process. Furthermore, different organisations were invited to draft the European Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG). The process sees quality assurance as a mechanism to support the mobility of students and academics, the recognition of study periods and qualifications and a competitive higher education in Europe in general. (Sursock 2012, 107) The ESG are a set of standards, procedures and guidelines for internal and external quality assurance for institutions and agencies. The ESG can be understood as a guidance and toolbox: they merely set standards and guidelines and don't give importance to whether institutions opt for a programme or institutional approach or whether a country is implementing an accreditation or audit approach for EQA for example. By doing so, the ESG support the idea that different situations and contexts might demand different solutions and approaches to enable assurance and improvement of quality. A further instrument of mobility and recognition in Europe is the European Qualifications Framework (EQF), an overarching framework for the national qualifications frameworks which allows the comparison of descriptions of the programmes and the competencies acquired by students. Here again, quality assurance and the ESG ensure that competencies and qualifications are trustable in the EHEA. (Kohler 2012a, 120–123) The European Quality Assurance Register for Higher Education (EQAR) lists trustworthy agencies which operate in Europe and has been established to promote mobility and allow institutions to choose agencies outside of their country for accreditation etc. (not compatible with every national regulation yet). The agencies applying to EQAR have to undergo an admittance procedure. (Kohler 2012b, 78)

The ESG have been revised and approved by the Ministerial Conference in May 2015. One main novelty is the stronger emphasis on the teaching and learning process with focus on the student and thus student-centred learning. Apart from that, another goal was to make the ESG clearer, easier interpretable and applicable. (ENQA et al. 2014)

3.2 Internal Quality Management Models

Up to now we have set the stage of defining quality, introducing to quality assurance, its terminology and external mechanisms. But how do you design a quality management system?

So far we have shown that quality is strongly tied to change (Harvey 2012, 30) and the management of change: from external forces such as massification and the need to identify and address socio-economic trends to internal needs to enhance the institution, departments and programmes (see Chapter 2.4). Change can take place at two strongly interacting and interdependent levels: at the individual and at the organisational level. Organisational change however needs single individuals and their commitment. Likewise change on an individual level (eg. of their behaviour) will hardly happen if employees do not understand the value of it and if they don't feel their own needs and beliefs are reflected in the organisation. (Bucher 2012, 94) A quality management system and its instruments should thus consider and address change coming from outside and inside, as well as facilitate change inside at the individual and organisational levels.

Many of the quality assurance models used in higher education have been adapted from industry and from business models. Total quality management (TQM) is the model that serves as a basis most frequently seen on an international level. In the next sub-chapters we will summarise existing models that come from industry and business that have been applied in HEIs to then discuss models that have been specially developed for higher education. Much like the discussion about the definition of quality in Chapter 1.1, many professionals argue that models from industry cannot just be implemented or easily adapted for higher education (Srikanthan & Dalrymple 2003, 133; Maria J. Rosa, Sarrico, and Amaral 2012, 129).

3.2.1 Models from Business and Industry

Are TQM and other models from business & industry applicable in HE?

While some academics have argued that TQM and models from industry are not suitable for higher education, Becket and Brookes (2008, 45) have summarised case studies with findings that state the contrary. There is a quite important limitation though, which probably gives the supporters unsuitability of TQM and industry models for higher education stronger backing: TQM, as stated by Srikanthan and Dalrymple (2002), works for the service function (see Chapter 1.3.1) of HEIs as students can be seen as customers for administrative services and facilities just like customers of any service in business and industry but it is not suitable when it comes to the educational and academic core processes of teaching and learning (Srikanthan & Dalrymple 2002, 215 et seq.). Thus models coming from industry like TQM can be beneficial for services and administration of a HEI (Becket & Brookes 2008, 45 et seq.). Teaching and learning however cannot be seen as a relation between "business provider" and "customer". The student is an integrative part of the teaching and learning process and can hardly be perceived as a customer in that regard. What models from economy and business lack, "is their recognition of the centrality of the student learning experience" (Becket & Brookes 2008, 45). To do so would for example mean seeing quality as transformation (see Chapter 1.1.2), enhancing and empowering the student which calls for a shift from the instructional paradigm of teaching to student-centred learning (see Chapter 1.4) and designing a system around this centrality.

> *"The main difficulty with the application of the industrial version seems to stem from the nature of the processes. Industrial quality systems are clearly process oriented, focussed on the needs of the customer. This is based on the assumptions that process characteristics are measurable and maintaining and improving them would adequately meet the customer requirements and give a competitive edge. But these aspects are far too subtle in relation to education, and have invariably been the source of controversy"*
> ***(Srikanthan and Dalrymple 2003, 133)***

Here you can see again the multi-dimension and complexity of quality in education as we have discussed in the first chapter. A model works however only for a small part of higher education. A premise for a functioning system that accounts for business and higher education models alike, is the existence of senior management commitment and of strategic objectives. (Becket & Brookes 2008, 44)

The findings might be an indication that institutions need to create their own model or mix to adequately assure and manage quality in higher education. Nevertheless, the industry models can provide ideas for your own system and be a starting point. Table 7 below summarises the most common models from industry that have been used in higher education. For a more extensive summary including findings of case studies for each model see the table in Annex 2 taken from Becket and Brooks (2008).

Quality models from business & industry

Model	Definition
TQM	A comprehensive management approach which requires contribution from all participants in the organisation to work towards long-term benefits for those involved and society as a whole.
EFQM excellence model	Non-prescriptive framework that establishes nine criteria (divided between enablers and results), suitable for any organisation to assess progress towards excellence.
Balanced scorecard	Performance/strategic management system which utilises four measurement perspectives: financial; customer; internal process; and learning and growth.
Malcolm Baldridge award	Based on a framework of performance excellence which can be used by organisations to improve performance. Seven categories of criteria: leadership; strategic planning; customer and market focus; measurement, analysis, knowledge management; human resource focus; process management and results.
ISO 9000 series	International standard for generic quality assurance systems. Concerned with continuous improvement through preventative action. Elements are customer quality and regulatory requirements, and efforts made to enhance customer satisfaction and achieve continuous improvement.
Business process re-engineering	System to enable redesign of business processes, systems and structures to achieve improved performance. It is concerned with change in five components: strategy; processes; technology; organisation and culture.
SERVQUAL	Instrument designed to measure consumer perceptions and expectations regarding quality of service in five dimensions: reliability; tangibles; responsiveness; assurance and empathy; and to identify where gaps exist.

Table 7 *Quality management models coming from industry and business (Becket & Brookes 2008, 44) (own table)*

3.2.2 Models from Higher Education

In response to the critique of the models coming from industry and business there have been many efforts to develop tailored models for higher education and its characteristics and particularities. Some have therefore used the models only as a basis to develop their own (from ISO 9000 to TQM and Malcolm Baldridge). They all recognise and consider the particularities of the core process of teaching and learning and thus set themselves apart from industry and business. (Becket & Brookes 2008, 52 et seq.)

Model based on educational theory & literature

The first model in the table below for quality management in education (QME) of Srikanthan and Dalrymple is an exception as it originates from educational theories and literature, using models of management of higher education instead of industry. The model draws on the fundamental concept of the student-learning expe-

rience, seeing students as a crucial part of the learning process and relying on the following core elements:

- "A clear focus on `transformation' of the learners, enhancing them through adding value to their capability and ultimately `empowering' them.
- A synergistic collaboration at the learning interface which transcends not only the traditional power relationships (for example, teacher ± student, between academic units) but breaks the barriers among institutions and reaches out into developing new external partnerships with community.
- There is a clear role for senior management in higher education institutions to `encouage and ensure' such a `collegial culture'"(Srikanthan & Dalrymple 2002, 220).

A detailed summary list of models designed for higher education compiled by Becket and Brookes (2008) can be found in Annex 3. Whichever model you may choose or develop yourself, we encourage you to consider that every higher education institution has its own particularities, and that it needs to be embedded in the context and overall vision and mission of the institution. Higher management commitment, ownership and empowerment as well as stakeholder inclusion are, furthermore crucial for a successful implementation.

Questions & Assignments

1. Reflecting on the contents of the course book so far, which factors should to be considered when designing a quality management system?
2. How do you assess the use in higher education of quality management models coming from the industry?
3. Choose one quality management model for your institution and explain why it is suitable for your context (independently of any models that might already be used in your institution).

Further Reading

- Redding, P. (2005). The evolving interpretations of customers in higher education: Empowering the elusive. *International Journal of Consumer Studies*, *29*(5), 409–417.
- Srikanthan, G., & Dalrymple, J. (2004). A synthesis of a quality management model for education in universities. *International Journal of Educational Management*, *18*(4), 266–279.
- Rosa, M. J., Sarrico, C. S., & Amaral, A. (2012). Implementing quality management systems in higher education institutions. In Savsar, M. (Ed.), *Quality assurance and management* (pp. 129–146). In-Tech.
- Sallis, E. (2002). *Total quality management in education* (3rd ed.). New York/Abingdon: Routledge.
- Tahar, S., Niemeyer, C., & Boutellier, R. (2011). Transferral of business management concepts to universities as ambidextrous organisations. *Tertiary Education and Management*, *17*(4), 289–308.

3.3 Introduction to Main Quality Management Instruments and Tools

What tools can a HEI use to implement and adopt quality management?

Many instruments can be adopted externally (EQA) or internally (IQA) (see Chapter 2.1.1). One main instrument is evaluation. It is the basis of quality management in higher education and can be externally or internally conducted. Special forms of evaluation have been conceptualised which have different aims: accreditation, audit and assessment. While accreditation is usually an external instrument implemented by national regulatory bodies, audit and assessment can be both external and internal instruments.

It is important to note that there is no "single way" of doing accreditation, audit and assessment, but that all of them have different forms which sometimes mingle between the three instruments and concepts (Woodhouse 1999, 33).

Besides the instruments introduced in this chapter there are many other tools, procedures and mechanisms for quality management in higher education, for example:

- a vision statement that defines quality of teaching and learning including guidelines,
- a quality management manual that describes the implementation strategy of the institution including process descriptions of teaching and learning and clearly defined responsibilities of actors, or
- staff development programmes for lecturers. (Pohlenz & Mauermeister 2013, 6 et seq.)

A further selection of tools and procedures will be introduced in the remaining four module course books.

3.3.1 The Quality Loop – PDCA as a Role Model

PDCA is an abbreviation that all quality assurance professionals are able to decipher for you in any circumstances: **P**lan-**D**o-**C**heck-**A**ct! That is vital for a basic evaluation tool that can be at the heart of all processes in an institution.

Firstly introduced by William Edwards Deming (1900-1993) as the Shewhart Cycle it is nowadays adjudicated to Deming and for this reason also called the Deming-Cycle or **P**lan-**D**o-**S**tudy-**A**ct as he later named it to emphasise analysis over inspection. The PDCA concept is a tool and foundation for the quality management of organisations, institutions, programmes, processes and projects emphasising continuous improvement.

P: as plan your idea
D: as do what you have planned, execute your plan
C: as check and analyse whether your have reached your goal and objectives and if you have stuck to the plan
A: as act according to what you have learned, develop improvements and enhancements
… and repeat this again and again.

PDCA: basic evaluation model and role model

Deming first introduced PDCA in post-war Japan and since then the concept has been widely followed in industry with a lot of success. It helped the Japanese industry to raise its production in order to win a large share of the American market with its exports. (Bucher 2012, 95) Since than, the concept has further developed and been used in different quality management models such as in the Six-Sigma model with **D**efine-**M**easure-**A**nalyse-**I**mprove-Control and in Kaizen emphasising on standards as **S**tandardise-**D**o-**C**heck-**A**ction. (Sokovic, Pavletic, & Kern Pipan 2010, 477 et seq.)

The simple logic of PDCA can be explained as follows for a certain goal, objective or process you wish to reach and implement:

Figure 8 depicts the continuous improvement idea and thus the idea of change behind the cycle:

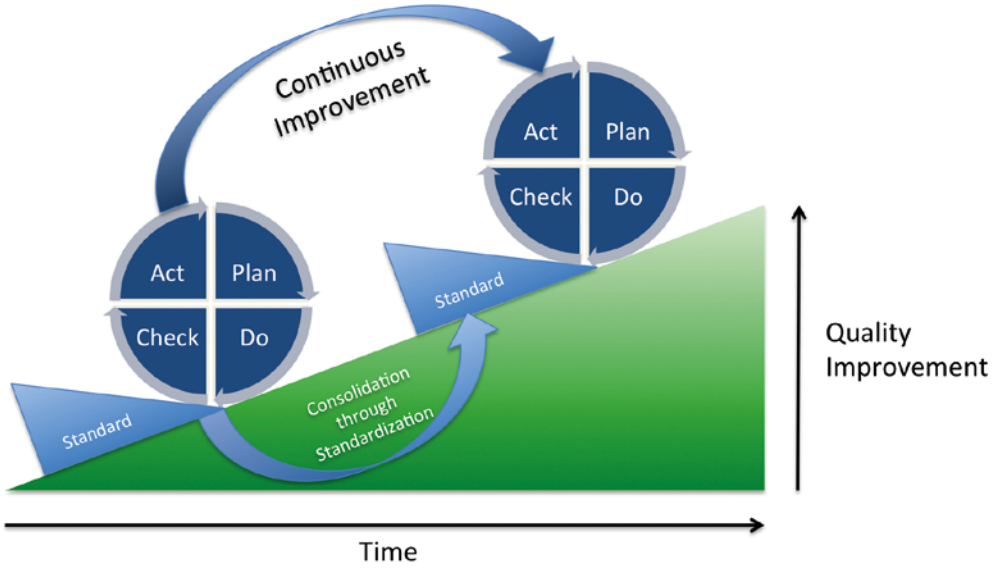

Figure 8 *The PDCA cycle of continuous improvement (CC Johannes Vietze)*

No matter which quality definition and quality management model an institution chooses, PDCA can be the core to define its process. PDCA as a simple tool can be used by everyone in the institution for the implementation of processes, be it the implementation of quality assurance, a QA instrument, a study programme or a lecture for example. Quality assurance officers can propagate the PDCA concept in the institution to be the basis of the individuals work and thus making it a role model.

3.3.2 Evaluation

Evaluation: fundament of many QM instruments

Evaluation uses social research methods and can be seen as the basis for all quality assurance instruments. As we have seen, the PDCA cycle (see previous chapter) is a basic evaluation model and tool and is therefore vital for the improvement in different settings. More complex evaluation models and designs can be tailored to the evaluation goal. You will find that the following instruments are all types of evaluation or at least related and that quality management and assurance is greatly based on evaluation.

Contrary to what some who are being evaluated might think, the purpose of evaluation, is and should not be control or pure judgement on the level of quality or standards, but improvement. The definition of the Analytical Quality Glossary is short-sighted as it stops evaluation at the checking or judgement phase. What happens after examination and judgement is the most important part of evaluation. This is where the logic of the PDCA cycle can be helpful again: after the check, action has to follow, otherwise evaluation would be done for the purpose of examining and judging only.

Evaluation at higher education institutions can be done at different levels (e.g. department, study programme, lecture etc.) or on a specific topic (student workload, student satisfaction, internationalisation, project etc.), internally or externally. It uses different methods to collect data from which results and actions are derived. Evaluation can be done according to different models and should be tailored to the purpose of evaluation. In the best case evaluation should be considered ex-ante (meaning before the event) allowing the use of a certain model according to the objectives, results and impacts and the collection of necessary data during the process.

A more detailed introduction to evaluation will be made in Module 2, tools and procedures.

3.3.3 Assessment

Assessment is a very broad term often used as a synonym of “evaluation” and “review” and similar to all the other terminologies in this chapter, not an instrument per se.

The only purpose of quality assessment is to measure and judge the performance of an institution, programme, unit or individual without, initially, any further means. In order to do so, it uses different methods, for example social science research methods or peer reviews. Since pure assessment with a final grading or ranking is not of much benefit to quality improvement, many governments have started to give recommendations after the assessments (Sanyal & Martin 2007, 35). Still, the main objective of an assessment is to review, measure and judge quality.

Assessment: measure and judge performance (as in C of PDCA)

Assessment

„Assessment is a general term that embraces all methods used to judge the performance of an individual, group or organisation.“
Source: Harvey (2004-14). Continue reading online...

Assessment can be done in the form of a self-assessment or external-assessment. Self-assessments (or self-evaluation) are particularly highly regarded in terms of usefulness for the assessed unit, department or programme etc. Self-assessment can be part of evaluation or accreditation procedures, as a basis for peers to further find out about and judge the programme or institution (see below and Module 2).

One recurring challenge of quality assessment of teaching and learning is to measure the outcome of higher education: the competences of the students gained through their studies. Different methods are being developed to have adequate data, but still there is no reliable practice that professionals are satisfied with, that reflect the gained competences. One of them is quasi-experimental longitudinal student surveys (see Module 2).

3.3.4 Accreditation and Audit

Accreditation is often wrongly seen as quality assurance although it is only one of many quality assurance instruments. It may be mainly due to the fact that it is the most common used instrument that academics are directly confronted with.

Accreditation and audits are generic processes that can be voluntarily conducted with professional organisations and unions, such as the American Board of Engineering and Training (ABET), in the case of accreditation, or the European University Association (EUA), for audit; or they may be compulsory processes, being enforced by national policy and carried out by agencies commissioned by the state (for example accredited themselves) or regulatory bodies which are part of the state. (Dill 2010, 379) Governments and ministries in some countries have given the right to assess and accredit institutions and their programmes to professional accreditation agencies. As a form of professional regulation, they act as a go-between, between the state and the institutions, and are often driven by academic members and societies in order to guarantee peer-expertise and impartiality. These agencies mostly act on a national level but a trend to act internationally and being recognised in other countries, is growing. The agencies are themselves made accountable and have to prove that they work according to set policies, guidelines and standards.

Accreditation: most common HE regulation instrument of states

Accreditation is mostly associated with accountability and focuses on a gatekeeper role, "evaluating whether something – e.g. an institution or program – qualifies for a certain status" (Woodhouse 2012, 5), by setting minimum standards for higher education institutions they have to comply to, to be accredited. For voluntary accreditations, study programmes can choose to be accredited or not, without consequences for the study programme to operate. In contrast, state regulated accreditation focuses on accountability and has a pass, fail or pass with conditions, as a consequence leading to in the worst case that study programmes or institutions may no longer continue to operate. As we have learned in Chapter 3.3.4, accreditation schemes have rapidly spread as the most used instrument for external quality assurance by the states.

Accreditation

„Accreditation is the establishment of the status, legitimacy or appropriateness of an institution, programme (i.e. composite of modules) or module of study."
Source: Harvey (2004-14). Continue reading online...

There are "fitness-for-purpose" based accreditation schemes and "standard" based ones. The first schemes have a stronger focus on improvement, whereas the second emphasise, that all higher education institutions have to comply with minimum standards. It is the two different camps of a relativist and objectivists based view on quality that we have seen in our Chapter 1.3.2 on defining quality. Accreditation can focus on single

study programmes or entire institutions, thus having a different focus but both being complementary as both cannot entirely ignore the other (Sanyal & Martin 2007, 7–10):

Institutional vs. programme accreditation

- **Institutional accreditation** for example looks at the mission, goals, governance, programmes, teaching staff, resources, students, services and facilities. It focuses on the system as a whole, whether it is suitable to assure quality for itself with mechanisms and practices, and has certain standards.
- **Programme accreditation** relies on single study programmes and, for example, looks at certain criteria and standards which are similar to the ones we have listed for the institutional accreditation, but just on a programme level. It concentrates, for example, on teaching and learning strategy, learning outcomes and goals of the study programme etc.

Programme accreditation can also be an instrument which is being used and implemented within HEIs, in the case of an institutionally accredited institution. It is then an internal instrument to self-accredit the programmes, which gives the institution a certain freedom in the development and implementation of the programme accreditation, thus making it for example less bureaucratic and time consuming and better integrated in the quality management system than external programme accreditation.

Accreditation is conceded for a specific timeframe only (such as 5 years) and sometimes there is a half-time assessment in these five years. After the five years, institutions or programmes would need to be reaccredited.

3 steps of accreditation:
1. self-evaluation report
2. site visit
3. peer report & verdict

Accreditation processes usually follow a three step model with a self-evaluation report handed in to the accrediting body which will then analyse it, and conduct a site visit with peers at the institution in order to verify open questions. On this basis, a report is produced upon which a commission will usually make a verdict. Thereafter, institutions usually have the chance to give feedback on the report and appeal against the verdict by providing new evidence for example. The peers can then reconsider the result.

What makes accreditation less useful for quality improvement over time, is the involuntary nature and accountability focus. If a study programme does not get accredited the consequence is that it will be shutdown. This leads to attempts to hide weaknesses and therefore to window dress the object being under accreditation. This procedure can be in contrast to evaluation (see Chapter 3.2.2 and Module 2) which is not necessarily connected to a formal summary judgement nor any form of formal approval. (Schwarz & Westerheijden 2004b)

Accreditation is sometimes connected to evaluation as supplement, in a way that they complement each other. Following the argument above, the link between evaluation to accreditation could defect the purpose of evaluation, and produce only results that try to window dress. (Schwarz & Westerheijden 2004a, 16) Evaluation is a part and prerequisite of accreditation, because self-assessment, as a form of evaluation, is the first step leading to a report that undergoes external review and a site visit in an accreditation process. (Schwarz & Westerheijden 2004a, 12)

Audits in contrast to accreditation, are associated with improvement of institutions which have already reached a certain threshold instead of accountability. This does not imply, that accreditation cannot lead to improvement or that the focus of audits may not be to hold institutions accountable for their own set goals.

Audit systems and procedures: less window -dressing?

(Woodhouse 2012, 5) The criticism of the window-dressing risk discussed with regard to accreditation, is less imminent with audits, as it judges the system and not the provision of the single study programme for example. Quality audits assess the quality management system and not the quality of the institution, in order to discover strengths and weaknesses. (Martin & Stella 2007, 36) The audits can only be carried out by individuals who are not involved in the auditing processes. The reason for audits can be to meet internal or external goals and the results are written down in report. (Vlăsceanu, Grünberg, & Parlea 2004, 50)

Audit

„Audit, in the context of quality in higher education, is a process for checking that procedures are in place to assure quality, integrity or standards of provision and outcomes."
Source: Harvey (2004-14). Continue reading online...

Academic Auditing at Kwame Nkrumah University of Science & Technology (KNUST), Kumasi, Ghana

Based on its Quality Assurance Policy KNUST has defined various tools and procedures to ensure and enhance quality in the core fields of teaching and learning, research and organisational structures of the university. Concerning external quality assurance, KNUST follows the accreditation standards and guidelines, set and conducted by the National Accreditation Board (NAB) and the National Council for Tertiary Education (NCTE). For internal quality assurance, KNUST uses different instruments. One is the Internal Audit.

KNUST defines this Internal Audit as "an independent, objective, assurance and consulting activity designed to add value and improve an organization's operations. It helps an organization accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve effectiveness of risk management, control, and government processes." (KNUST Website, About Audit).

Based on this definition, KNUST uses the Internal Audit as a tool to ascertain the validity and reliability of information and also to provide an assessment of the adequacy and effectiveness of management's internal control systems (cf. KNUST Quality Assurance Policy). The scope of the internal audit includes:

- Reviewing the reliability and integrity of financial and operating information and the means used to identify, measure, classify, and report such information.
- Reviewing the systems established to ensure compliance with those policies, plans, procedures, laws, and regulations which could have a material impact on operations and reports.
- Reviewing established systems of internal control to ascertain whether they are functioning as designed.

- Reviewing the means of safeguarding assets and, as appropriate, verifying the existence of such assets.
- Reviewing specific operations at the request of the Audit Committee, the Vice Chancellor, or other managers, as appropriate.

Discovered shortcomings and discrepancies are discussed and revised to develop appropriate measures by the so-called Quality Assurance and Planning Unit (QAPU). This unit is in charge to promote and supervise internal quality assurance processes at KNUST. The results are presented to the Academic Board of the university. This Committee is the final authority to approve any recommendations or suggestions with regard to the maintenance or enhancement of academic quality standards at KNUST.

To guarantee effective, reliably and trustful auditing procedures KNUST underlines that the auditor in charge should fulfil the following essential characteristics (cf. KNUST Website, About Audit):

- Being independent and objective.
- Being knowledgeable in the operation of the organisation.
- Being trustful and recognised with the job as consultant.

Solveig Randhahn (based on KNUST quality assurance policy and website on internal audit. Retrieved on January 31, 2015, from http://audit.knust.edu.gh/about-audit)

Questions & Assignments

1. Are there any examples of processes at your HEI that are based on the PDCA cycle? If so, please describe.
2. Discuss ways to implement the PDCA cycle as a role model of everyday teaching and learning in your institution. How could the principle be propagated in the faculties?
3. What is the difference between evaluation, accreditation and audit?
4. Summarise which tools and instruments for quality management are in use at your institution.

Further Reading

- Sanyal, B. C., & Martin, M. (2007). Quality assurance and the role of accreditation: An overview. In Global University Network for Innovation (Ed.), *Higher education in the world 2007. Accreditation for quality assurance: What is at stake?* (2nd ed.). New York: Palgrave Macmillan.
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Chapter 4

Structures and Roles in Quality Management

How to Implement a Quality Management System

On successful completion of this chapter, you should be able to…

- weigh up the possibilities on how to structure QM in the context of your own institutional framework, culture and tradition,
- describe and allocate roles and responsibilities in QM,
- weigh possible roles and responsibilities of a QA unit at your own HEI,
- reflect the process of implementation or revision of a QM system.

4 Structures and Roles in Quality Management – How to Implement a Quality Management System

Define structures aligned to quality notion and model

After all we have discussed so far, one can summarise that managing quality in higher education and driving change is a demanding and delicate task. Having discussed the definition of quality, possible models and some main instruments, the next step we want to address when designing a QMS, is to build the structures, set the roles and conceptualise the implementation process. As when considering a definition of quality and a model, there is no pattern or single approach to follow. The quality definition and model however, will give you more or less defined requirements and prerequisites for your structures, and where to locate them in your organisation in order to support and implement your system. Similar to defining quality and weighing up models and instruments, institutions have to strongly consider and incorporate their own context (external and internal), traditions, culture as well as limitations when setting up and changing structures. Additionally it is important to keep in mind, that every model or structure has its strengths and weaknesses. We will discuss some of them in the following paragraphs.

4.1 Structuring Quality Management

Every organisation needs to have a plan on how to organise and divide the work in order to run the processes smoothly, fulfil its own duties and reach the set goals. With structures of quality assurance we understand the definition of relationships and allocation of responsibilities, the division and grouping of work as well as the coordination and control of the tasks. It is generally the structuring of people and processes concerned with quality management in the institution. (Senior & Fleming 2006, 78) A first deduction from this definition is that the structures should serve the goal of your quality model, be it mainly directed at control, assurance or enhancement, and secondly support the processes through which the institution wants to reach its quality standards and objectives.

Structures need adjustment over time

Informal structures

The design of organisational structures is a duty of the senior management[9]. It defines how the organisation should function, taking into account the organisational context, its specifics and its environment to deduct how the objectives could be achieved and ways that are unlikely to be successful. Therefore, structures of quality management vary from institution to institution. Structures are not fixed, they can be enhanced and they should adapt to change in order to fulfil their function (Bose 2012, 94). This does not mean that they should be hastily reworked and continually changed. Changes in structures should be thoroughly considered. The existence of "informal" structures should also be taken into account. They are "the outcome of friendship and interest groupings as well as those which serve political purposes, sometimes not related to the organization´s goals" (Senior & Fleming 2006, 79), but these are often difficult to predict.

9 In this context, senior management refers to the Rector, President, Vice Chancellor or a Vice/Deputy responsible for teaching and learning for example.

As we are not discussing structuring higher education institutions as a whole, but only the localisation of quality management within them, a first step is to consider and analyse the existing structure of your institution which is usually laid out in an organisational chart. The chart can help to define where quality management structures should come into play. It could be at one single or at multiple locations within the chart and with different reasons for or against it.

For background knowledge on how to structure your quality management, we will now first give an outline of Mintzberg's professional bureaucracy which is often seen as the specific type of organisational structure that characterises higher education institutions. This will then be followed by exemplary ways to structure quality management and some further points that should be considered for the decision making process.

4.1.1 The Structure of Higher Education Institutions According to Mintzberg

Mintzberg's professional bureaucracy and HEIs

There have been different taxonomies of organisational structures and one of the most influential ones is Mintzberg's (1980) 'structure in fives'. Mintzberg sees higher education institutions to be mostly what he calls the 'professional bureaucracy'. Following this type, higher education institutions are in a stable but complex environment and are characterised by professionals (the lecturers and researchers) with a high level of specialised skills and knowledge. The coordination of work in the organisation is not divided or organised by processes but through the standardisation of skills and knowledge of the employees, which they obtained in their higher education studies. Authority is strongly decentralised in HEIs giving a large share of power and autonomy to the academics, working freely even in relation to their colleagues. As a result the central senior management is not very powerful. Formalisation, standardisation and regulation are minimal due to the complexity of work in teaching, learning and research. The relatively large support staff has mostly a back-up function and is highly dependent on the academics. (Mintzberg 1980, 333 et seq.)

HEIs as a special type of organisation

Mintzberg's taxonomy of organisational structures might not be fully up to date in regard to higher education institutions in our times (Steiger, Hammou, & Galib 2014, 44) because of the emergence of NPM (see Chapter 2.3.2) resulting in the introduction of managerialism in higher education. Still the professional bureaucracy can be considered as being the tradition of higher education institutions and, to a different extent, is still present still today. You will probably have observed that some of the descriptions above exist to a certain extent in your own institutions. Not without reason, higher education institutions have been described as 'loosely coupled sytems' (Weick 1976; Orton & Weick 1990) or as 'organized anarchy' (Cohen, March, & Olsen 1972).

Questions & Assignments

1. How is the general structure of your institution organised?
2. What characterises the professional bureaucracy of Mintzberg?
3. To what extend does your institution resemble Mintzberg's professional bureaucracy and what are the differences?
4. How would you describe the relationship and cooperation between senior management and the faculties in your institution?

4.1.2 Exemplary Types of Institutional Quality Management Structures

Structuring quality management is mostly a question of centralisation vs. decentralisation. Where should quality be managed and by whom? Should it be located under the central senior management or in the decentralised levels of power (faculties, departments, etc.) to reach the highest possible impact?

No matter whether your quality management approach has a stronger centralised or decentralised approach, there is a need for clear responsibilities also on the central institutional level.

Kaufmann differentiates between two main variables that distinguish the implementation of quality assurance: the organisational structure and the steering approach. All in all, they allow four configurations which you can see in table 8.

Centralised vs. de-centralised QM structures

Steering of Senior Management		Content	
		Centralised	Decentralised
Organisational Structure	Centralised	Content specification by senior management and central implementation	Content autonomy by faculties and central implementation
	Decentralised	Content specification by senior management and independent implementation	Content autonomy by faculties and independent implementation

Table 8 *Steering options of quality assurance (translated from Kaufmann 2009, 26) (own table)*

The following examples adapted from Kaufmann (2009) are three frequently implemented types of quality management structures found in German higher education institutions and show how they are integrated on a central organisational level.

1. Administrative unit under senior management: locates the unit for quality management directly under senior management, often under the responsible person for teaching and learning therein (e.g. Vice President/Rector or Deputy Vice Chancellor). By doing so, the unit is directly responsible to the senior management and not part of the remaining administrative hierarchy. According to the principles of TQM, the unit designs and develops the quality management system, for example implementing new instruments or by offering workshops for staff development. In this case the central responsible unit would not be directly involved in the quality control and enhancement but only in coordination, supporting the faculties, departments and lecturers. However, the procedures are frequently carried out by the central unit anyway, since competencies and resources on the decentralised levels might not (yet) be able to do so.

Advantages	Challenges
■ Direct link and communication to senior management and thus easier strategic management with results gained from the QMS ■ Easy to implement without need of restructuring or big changes ■ Independence from administration allows greater freedom in the field of administrative evaluations and reforms	■ Animosities from the administration that could fear a loss of influence ■ Higher risk of being a formal establishment to satisfy external demands. "Talk" instead of "action" ■ Unit might be seen as the extended arm of senior management, leading to suspicions and fear of control and thus not supporting quality enhancement ■ Difficulty to install permanent staff, less sustainable

Table 9 *Advantages and challenges of a unit under senior management (adapted from Kaufmann 2009, 21 et seq.)*

2. Unit under the administration: the output measurement and process control are traditionally located in the administration of HEIs. This type of structural integration locates the unit either in an administrative department or establishes it as its own department. The latter frequently bundles quality management with a planning, development and controlling department. When newly introduced quality assurance responsibilities are often placed in different administrative departments, for example by dividing tasks for teaching and learning from those of planning and controlling.

Advantages	Challenges
■ Easier coordination with other administrative departments through the given proximity and similarity ■ Better integration into the whole institution could be reached thanks to the administrative link and link to senior management ■ Permanent posts can often be created which lead to greater sustainability	■ Only indirect link to senior management ■ Risk concentrating on controlling aspects and losing strategic direction ■ Risk of stronger communication difficulties with faculties, academic departments and lecturers ■ Risk of making organisational development and consulting more difficult, for example because of lack of independence from other administrative departments ■ Difficulty to do research

Table 10 *Advantages and challenges of a unit under administration (adapted from Kaufmann 2009, 20 et seq.)*

3. The independent centre: is often a unit on its own that is responsible for quality assurance and evaluation with a good portion of autonomy from senior-management, administration, committees etc. It functions as an entity between senior management and the faculties and departments. Senior management is often the direct or indirect principal of the processes and procedures. An example would be the evaluation of teaching and learning or the support for programme accreditation of study programmes. The strong independence by

design, allows the better provision of scientific (research-based) advice and support and appeases the perception of being the extended arm of senior management (as could be seen in model 1). Sometimes these centres are linked to specific academic departments, for example of psychology or empirical research methods, in order to allow continuity and the necessary scientific competencies. A centre would further allow research with the (usually high amount of) collected data. On an organisational level, the centre can be integrated at different positions, for example under the senate or the university council.

Advantages	Challenges
■ Independence from senior management which can support a more independent view ■ Stronger scientific-led work that is more appropriate for the teaching and learning environment of scientists ■ Stronger trust in the unit, not seeming to follow the senior management agenda ■ Possibility of research can support quality enhancement with new findings and techniques ■ Stronger reputation within and outside the institution	■ Expensive model usually only fitting to larger sized institutions ■ Often not all the organisational development and controlling functions can be covered, leaving some of them in the administration or elsewhere ■ Difficult to install permanent staff, less sustainable

Table 11 *Advantages and challenges of an independent centre (adapted from Kaufmann 2009, 19 et seq.)*

Questions & Assignments

1. Which of the exemplary structural configuration types do you see as being most suitable for your institution? Please elaborate why.
2. Which of the three configurations would support quality enhancement in teaching and learning most in your opinion?
3. Please describe the quality management structures at your institution specifying similarities and differences to the above introduced models (table 8).

4.1.3 General Considerations for Structuring Quality Management

One deduction of how to structure quality assurance from Mintzberg's Professional Bureaucracy (Chapter 4.1.1), could be that "the quality business" has to be in the hands of the academics given the high amount of autonomy and ownership of knowledge and skills. Still, there would be a need for structures on the institutional level that support the individuals or assure and set certain standards and procedures that allow benchmarking for example. It would also be important to consider which structures can support you best in achieving the goal to include everyone and to create a feeling of stakeholder ownership of quality enhancement. Especially in an academic environment, "over structuring" might have the undesired effect of overloading or overburdening the involved actors.

Choosing the right structure

The following points give you some guideline questions you can use when setting up or developing your quality structures and include exemplary structural decisions that could be derived from them.

- **Size of the institution** - how big is your institution? The bigger the institution the more difficult it is to centrally run quality management. Whereas if you institution is small, a centralised structure will be suitable. Size has further repercussions to the manpower you will have and need.

- **Diversity** - how many faculties/departments and different traditions and cultures are present in your institution? An institution with one main field, such as economics, could more easily centrally define quality and quality assurance mechanisms. A centralised one-for-all approach could be suitable. On the other hand, it would be difficult to only have central structures for a diverse institution which will probably have many conflicting views on what is quality and how to assure it. Quality definition, assurance and enhancement can be located as low as in the hands of programmes or even lectures. In this case having a central structure that defines minimum standards and allows strong decentralised decisions, might be a better choice.

- **Geographic dispersion** - how many campuses does your institution have? Are they all nearby, in different cities or even countries with different jurisdictions? If your institution needs to manage the quality of a number of branches, the setup must consider how to make sure the same quality standards are present in all of the locations and how you can foster enhancement. Geographic dispersion automatically calls for stronger decentralisation with a certain standard to be fulfilled centrally.

- **Quality notion and model** – which quality notion and model does your institution pursue? Further deductions on the structure can be derived from the quality notion and the model you want to implement. Again, if we see quality as transformation (Chapter 1.1.2), quality management might be better decentralised and implemented by the faculties/departments and individually by the lecturers. With a control oriented definition on the other hand, a more centralised approach might be more useful.

- **Context, institutional setting and tradition** – e.g. how autonomous are the institution and its employees? If there is a tradition of strong academic freedom, it might be difficult to run quality management centrally. It might be wise to support the academics in their ownership of quality.

- **External rules and demands** – does the country's EQA system require you to have certain structures? It is important to know if there are any demands or guidelines from the external assurance body which have to be met. Usually though, it is up to the institution to structure QA as long as they have a unit and a system in place.

- **Budget and resources** – how much budget should be allocated? Budget is always a restriction, but it does not mean that quality management cannot be part of your institutions daily work and routines. Existing resources and structures that are close to quality assurance and management could be bundled and topped-up. However, just allocating quality management duties and responsibilities on top of existing departments/individuals would be counter-productive. Either new resources are allocated or other tasks should be rearranged or dropped.

There are no strict guidelines or rules on which model to choose and what structure to implement for QM. The many case studies, that show how QM is being implemented in higher education institutions all around the world, can be used to gain ideas and food for thought, but they should always be mirrored in one's own institutional setting and context (see also Chapter 1.2.4). Chapter 4.4 will introduce you to two exemplary systems.

Questions & Assignments

1. Which contextual factors would you consider for the quality structures of your institution and what do you deduct from them?
2. Would a centralised or decentralised approach better suit your institutional setting? Please elaborate why.
3. Are there any external rules and demands for quality structures or guidelines for systems that you need to follow? How could they be made suitable for your internal QM?

Further Reading

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4.2 Roles and Responsibilities

Clearly defining roles and responsibilities for the staff that is performing quality management procedures is a crucial part of implementing your quality system. Questions that have to be answered range from "who should initiate the quality process?" or "who actually defines, implements and runs quality management?" to "which knowledge, support and human resources are needed?".

We have already emphasised the importance of leadership in Chapter 4.1 and will further discuss the senior management role and that of the quality managers, the quality management unit and the faculties in the following chapters.

4.2.1 Role of the Senior Management

Initiator of QM

Especially in the initial phases of quality management implementation, the commitment and support of senior management is crucial. The design and key structures for quality in higher education institutions can only be defined by the senior management, being the ones in the institution with the means and authority to implement them. In contrast, faculties and departments would lack the resources and competencies to do so. (Kaufmann 2009, 18) The model of the first exemplary structure we have described (see Chapter 4.1.2), with close tie of the unit to senior management, would therefore be a suitable option, especially for the initial phase (Kaufmann 2009, 25).

Clear and realistic vision & mission as a fundament

Strategy & resources

Senior management has to be committed and has to support the quality management system first and foremost by making sure the HEI has a clear and realistic mission, vision and goals upon which the QMS can be based. An additional main role is to set a clear strategy for the introduction and implementation of the quality management system (Becket & Brookes 2008, 44). It also needs to secure the funding of human resources and facility needs, with a clear goal of setting up sustainable structures and to support the faculties and departments in their quality work. It might make sense to use existing resources and place new tasks on their shoulders, for example in the faculty. However, this cannot mean that it can happen without making adjustments either resource wise or by relieving the faculties (or individuals) in other tasks.

Agenda setter

A further role of senior management is to be an initiator who sets new topics on the quality agenda. For this purpose, they should always be well informed about external demands and changes in the university's environment. The strategy should reach farther than the mere goal of "fulfilling the externally set demands and standards" and should occupy topics and challenges that will concern the institution in future.

With all these duties, senior management surely cannot be left unaided. It should therefore mobilise human and structural resources that support the strategy. Depending on the context and history, the starting point can be very different case by case: some HEIs might already have a unit from the beginning, others might have certain departments close to quality management such as controlling or evaluation or have already a system in place. Whatever the situation is, it is important that the competences of these structures are clearly defined and verified in order to realistically implement the quality management system and define the support and structures which are further needed to do so.

Clearly define role of quality manager

Where there are no quality management structures in place, the first step could be to choose a main responsible agent for the institution: a quality manager in form of an assistant, deputy, director or head of quality unit. The quality manager's role and responsibility should be clearly defined and laid down in the job description. When choosing the responsible person, senior management should make sure that the quality manager fulfils the required profile and in case of need, allow the development of the missing skills in form of further individual training. Senior management must keep in mind the importance of the quality manager for the successful implementation of the QMS and consider the environment in which the daily work will have to be done. Being an academic environment, it should be considered that the quality manager should to some extent be senior, possibly with academic credibility and background. This supports the individual credibility and will allow the quality manager to understand the needs and concerns of the academics more easily. The quality manager must further be able to count on the support of senior management and vice versa.

Consider working environment

What we have just outlined also counts for quality management units: these should also have a clearly defined role and responsibilities. The implementation of procedures should happen transparently with inclusion of the faculties, departments and other relevant stakeholders such as students, employers and society. Senior management

needs to make sure that especially faculties and departments but also other stakeholders know their part of the responsibilities and roles, too.

From all the findings about the success of quality management systems, coming from business or higher education, the importance of the role of leadership cannot be emphasised enough (Becket & Brookes 2008; Steiger, Hammou, and Galib 2014):

Importance of leadership

> *"leadership is the prime factor responsible for an organisation's development, acting upon the definition of its policy, strategy and culture, making available the resources needed for its processes, establishing culture, making available the resources needed for its processes, establishing necessary partnerships, intervening in the recruitment, and training of its different actors and contributing to its structure and internal organisation".*
> ***(Maria João Rosa & Amaral 2007, 195)***

4.2.2 Role of the Quality Unit and Quality Manager

Not every higher education institution has the size and the available resources to sustain an explicitly assigned quality assurance unit. Therefore, the following refers to any kind of organisational set up of quality management, when we mention the role of the quality manager.

Agent of change

Quality managers, especially when they are closely tied to the senior management, should function as agents who on the one hand support the strategic orientation of quality management and on the other, advise with necessary expertise, such as with knowledge about the context, about external demands (e.g. EQA), about methods and instruments and about the institutional culture. This role as supporters of the senior management is especially important during the initial introduction of quality assurance mechanisms, but also during its continued implementation.

Service, support & coordination

QM interface

The role of quality managers for the institution as a whole can vary depending on the quality notion and model adopted as well as the context (for example the size and resources). Generally, the function is to offer support and to coordinate quality management at the institutional level and to liaise with the next lower level such as faculties and departments. The quality manager is the strategic interface where all quality threads converge.

Quality managers have, on the one hand, an expert and service function in terms of EQA (such as supporting external accreditation and audits) and IQA (such as self-evaluation and follow up) facilitating and assisting the institution for both. They are agents of change who need to secure transparency and participation in order to motivate and include the different stakeholders to cooperate (e.g. individual teachers).

Scientific-based work and methods

On the other hand, quality managers need to make sure that the system is working properly and is water-tight by using robust scientific methods, mechanisms and techniques. They need to be in steady exchange with the faculties and departments, the different committees etc. and to make sure that quality is actually controlled, assured and enhanced. In this regard it is further important that the quality management system is well balanced between EQA and IQA.

Research in teaching & learning

A third possible function refers to research of teaching and learning: the data collected and available for the quality management system, can be used as a means of research to then feed the findings into the system to allow quality enhancement in teaching and learning. This third function is surely very demanding and not practicable without the resources of a standing unit. However, the work of the quality managers should be based on up-to-date research findings and scientific methods, which does not mean that they actually have to be active in research about teaching and learning or quality management themselves.

Participatively develop quality notion and system

In constant exchange with the institution and its stakeholders, one of the fundamental tasks of the quality manager is to jointly identify and develop the quality notion which translates into the quality management system and framework by facilitating discussions, dialogue and decisions. A further duty is to document the quality management system and possibly the processes of teaching and learning in order to make them transparent and have a common ground for their own and especially the work of others. The institution will need guidelines and policies that describe the processes and responsibilities such as a QM handbook, the description of processes and information flows (see Module 4) and evaluation policies.

Handle/ address challenges and foster QM support in institution

Quality managers must also be prepared to handle challenges which can arise in connection with their work, both inside as well as outside the institution. They will often find resistance of different types and at different levels. A typical form of resistance is to criticise methods and instruments as not being adequate or scientifically proven or to rely on "academic freedom" for having a different view and/or not being able to be judged by the system or being passive. Others might only fulfil their criteria and duties on paper. (Kaufmann 2009, 29) External challenges could be that certain data or results are wrongly interpreted and put the institution in a wrong light. Generally, many of the challenges that quality managers and units have, show the need for proven scientific instruments and mechanisms.

New roles?

Sursock and Vettori (2012) have examined quality cultures in European higher education institutions. Their findings have underlined the need for new roles for quality managers, which emphasise the facilitating function. They should:

- **examine quality cultures** of the institution. How do the individuals in the institution handle quality and quality assurance? Are there repeating, similar or different types?
- **facilitate organisational reflection**, change and dialogue in the institution. This function goes beyond a mere coordinating function and emphasises the role as a facilitator, which we have already addressed above.
- **translate between languages**. It is not easy to bring together different actors of higher education institutions and there is often a need to translate the languages used in order to have a common ground and understanding. The translation would be for example between the language of QA and the one of the institution or the language of the academics and the one of senior management.
- **be "cultural brokers"** in the sense of linking, mediating and bridging ideas and help actors to take their perspectives.
- **be "meaning agents"** who support managers within the HEI in sense-making processes and help to generate meaningful information.

The contents of the TrainIQA course with its five modules further reflect the areas of expertise quality managers should have. This does not mean, that they have to be an expert in all of these fields, but they should know the basics of some and be specific experts in others. In every day work, quality managers should never forget that quality management should not become a burden for the individuals in the institution but actually enhance it without being too demanding. This also helps to make sure that a "burden connotation" within the institution does not arise, which can happen, even when it is not a lot of required work.

To support the long list of tasks a quality manager has, and to better backup and promote the institution's own view and model of quality within it, the institution can setup support structures such as setting up a central staff development department for teaching and learning in the quality unit and facilitate the propagation of quality with focus groups in the departments or faculties. These measures could also be located outside the quality unit. In that case, there should be a close cooperation between the two units. These forms of cooperation and links with other departments should be scanned and detected (see Module 5). They can be vital for the quality of teaching and learning. Another possibility for cooperation could be with quality assurance related scientific fields the institution has, such as social science research methods, psychology or didactics.

All in all, quality units can have a very diverse setup with core tasks and supportive tasks that might be deducted from your quality definition in order to enhance teaching and learning. The following table gives you an idea of what these could be.

Possible tasks of a quality manager/unit

Core Tasks	Supportive Tasks and Special Topics of Interest
■ Evaluation ■ Accreditation ■ Didactics and further education and training for lecturers ■ Data management/ knowledge management ■ Controlling and monitoring ■ Coordination and organisation of teaching and learning	■ E-learning (e.g. training and support for lecturers) ■ Employability, career service ■ Dealing with diversity of students ■ Internationalisation ■ Higher education research ■ Transfer function (knowledge and services) ■ Community service ■ Etc.

Table 12 *Possible core tasks, supportive tasks and special topics of interest of quality management units*

Quality managers can be seen as blended professionals, "who have mixed backgrounds and portfolios, comprising elements of both professional and academic activity" (Whitchurch 2008, 377). As a relatively new task in higher education institutions, the roles of the quality manager and quality unit are continuously evolving. In practice it will not always be clear where the responsibility of the quality manager starts and where it ends. Sometimes animosities will arise due to conflicts in roles with other departments and units. A clear cut for quality managers in teaching and learning would be the actual implementation of solutions and enhancements which are clearly to be seen in the hands of the actual providers of teaching, although the quality manager might be involved in the follow-up process.

4.2.3 Role of Faculties, Departments, Study Programmes and Lecturers

> *"As Dill (1995) stated, we cannot achieve higher quality by inspecting; quality has to be 'made' painstakingly in the interaction between educators and students at the work-floor level"* ***(Westerheijden, Stensaker, & Rosa 2007, 6).***

Define roles of faculty down to individuals

Last but not least, the quality management system needs to include the role of the faculties, departments and study programmes as well as of the single lecturers. What are they expected to do? In which processes are they being involved and which not? What are their duties and responsibilities? How should they get involved? How can they be supported?

The role of the individuals, study programmes and departments in the faculties might be actually the most difficult and probably also most important one. The system and structures need to facilitate them to evaluate and enhance teaching and learning, incorporating sometimes conflicting, stakeholder demands and external regulations. Since the quality of teaching and learning is mainly in their hands, the motivation, attitude and action is key for quality assurance and enhancement. It is therefore important to include them in the processes of setting up the system and implementation, inform them about the requirements, needs, goals and especially about the benefits. Individual lecturers should make use of quality instruments in form of evaluation and tools like the PDCA cycle (see Chapter 3.3.1) which support them in their endeavour for quality. In the end, the faculties, department and study programmes are a key stakeholder when it comes to defining the specific quality of teaching and learning. They know where problems and challenges are to be found and where potential for enhancement exists. The quality management system should support them in doing so. A fundamental requirement is their active participation and motivation with quality enhancement being part of their everyday work. This kind of commitment is often seen as one of the necessary pillars to establish a "quality culture".

Actors as in "A" of PDCA

Thinking and setting the roles in quality management should be seen as a continuous process. Roles can change over time as the institutions and external demands and requirements change. We encourage you to include all relevant stakeholders such as the students, the employers, the state and society at large in your considerations about roles and responsibilities for quality in your institution and your quality management system.

Questions & Assignments

1. How would you describe the relationship between you and your senior management?
2. Reflect and describe the roles for quality management for your own HEIs.
3. Who else do you see having a role and responsibilities in QA? Please elaborate.

Further Reading

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4.3 Implementing a Quality Management System

Define an action plan of implementation or revision

Having discussed the possible structures and roles, we will give you a short example on how the process of implementation of a QMS could look like. How can a QMS actually be implemented and revised and what needs to be considered? Who has to be involved? Which resources are needed?

Before going into greater detail about the phases of implementation, there are some fundamental questions that should be taken into account by the initiator of the process, which is usually senior management with support of a quality manager. They can be laid down in a personal action plan or draft concept before involving other actors:

Fundamental questions

- **Define the goals and objectives** of the QMS: what does the institution want to achieve with the system? And following from that, which quality notion, definition and paradigm is the system based on (to begin with)?
- **Define the timeline and milestones** of implementation: how long is the general timeline for the development phase, the implementation phase and until short-, middle- and long-term goals are achieved?
- **Define partners and actors:** who has to be involved in the implementation or revision? At which point and how intensely? For example: which roles do senior management, the faculties, administrative departments or the students' union play?
- **Define resources**: which resources are needed to implement and run the system? This applies to human and financial resources as well as infrastructure and Information Technology (IT) for example.
- **Define how to measure the success** of the single implementation phases: the milestones set for the implementation or revision should be transparent and clearly defined in order to know if they have been reached or not. In order to not lose motivation during the mostly long and demanding process, it is advisable to run a "policy of small steps" which leads to many smaller achievements, where milestones should be celebrated. Don´t think too big!

Based on these basic preliminary definitions, the implementation or revision process of a QMS can have the following 6 phases:

6 implementation phases based on PDCA cycle logic

1. **Conceptual phase:** the preliminary definitions we have laid out above can be already seen as being part of the conceptual phase. The further task in the conceptual phase is to find answers to fundamental questions such as the main pillars of the system, the definition of the key elements and instruments and their development. At the end of this phase there should be an action plan which includes activities, milestones, responsibilities, involved actors and outputs/outcomes for example. The more detailed the better. It should be clear though that the action plan will be constantly evolving.

2. **Activation phase:** this is the phase where you coordinate with the most important stakeholders and create awareness for the need of a QMS or its revision. You will need to find allies for the political decision-processes in your institution.

3. **Implementation phase I:** You start implementing your plan by developing the instruments, setting up the communication infrastructure to discuss achievements, to develop mechanisms etc.

4. **Reflection phase**: it is important to receive stakeholder feedback, make adjustments to the concept and locate the source of current implementation challenges to make adjustment to the implementation plan.

5. **Implementation phase II:** with the new knowledge of the reflection phase the further implementation of instruments and mechanisms can be started. Instruments should be linked and processes documented for example.

6. **Evaluation phase:** finally, the system should be evaluated internally or externally. The latter could be done with an audit, accreditation or evaluation. With a new system you would generally first look at the functioning of the system. If it is already quite mature the evaluation phase could concentrate on the outcomes and impact of the system.

Whichever phases you choose for your implementation plan, it should be based on the PDCA cycle logic (see Chapter 3.3.1), meaning that the process would re-start from the beginning once ended. Quality management systems should never be seen to be “complete”, on the contrary they should be developed continuously. This is a main difference to a project implementation process, which has a predefined end, but generally the steps and phases are comparable (see hand-out on project management).

4.4 Case Studies of Quality Management Systems and Structures

The following are two short exemplary case studies that show how quality assurance and management is being implemented in different types of institutions.

4.4.1 Quality Management System of the Vietnam National University Ho Chi Minh City

With over 50,000 students the Vietnam National University Ho Chi Minh City (VNU-HCM) is one of the biggest universities of the country. It was established as a merger of different institutions in 1995 and has the particularity of being an umbrella organisation of currently six universities, one school, one research institute and a number of centres. Each member institution has its own faculties and departments.

The QA system at VNU-HCM is based upon the importance of a good balance between centralisation and decentralisation. It consists of three levels: the overarching VNU-HCM level with a QA council and the Center for Educational Testing and Quality Assessment (CETQA), the member institution level each with its respective QA Unit, and the quality unit at faculty level within the institutions (see figure 9).

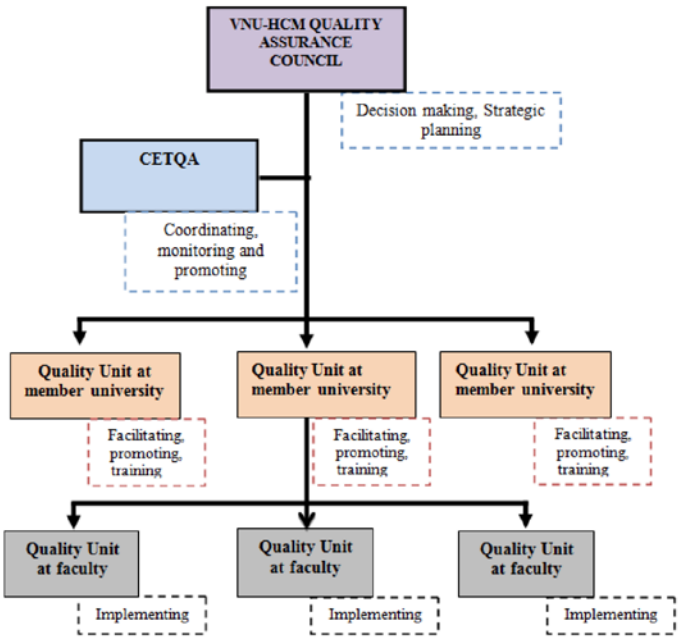

Figure 9 *QA structure at Vietnam National University Ho Chi Minh City*

CETQA is a standing unit of VNU-HCM's QA Council and serves as the QA unit on VNU-HCM level. It is to some extent the bridge between the QA Council and the QA Units at institutional level. CETQA is under the direct guidance of the president and vertically related to the other units of VNU-HCM's QA system. It coordinates, facilitates and monitors the QA practices of the member institutions and provides consultancy for the QA Council for example in matters of strategy. It also makes sure that the decisions made by the QA Council are implemented on the member institutions level.

The QA Council sets the direction and strategy for QA practices for the whole system. The QA Units of the member institutions develop their strategy in alignment with the VNU Council and their own context. The quality units at the faculty level are then responsible for the implementation. CETQA annually conducts internal quality assessments at programme and institutional level. On the programme level the assessment is based on the AUN-QA criteria while on the institutional level the criteria in use are issued by the Ministry of Education and Training (MOET). A QA handbook with guidelines for QA practice is further currently being issued.

Nguyen My Ngoc (VNU-HCM, 2015)

4.4.2 Quality Management System of the Multimedia University

While VNU-HCM is a public university, the Multimedia University (MMU) is a privately run university in Malaysia established in 1996 with a focus on Engineering, IT, Multimedia, Business and Law. It has over 20,000 students in 9 faculties at three campuses.

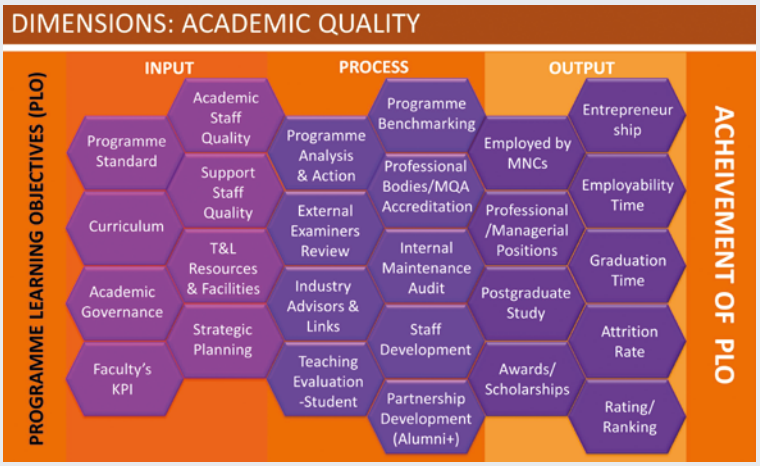

Figure 10 *Academic quality dimensions of Multimedia University*

The governance of academic Quality Assurance (QA) in Multimedia University (MMU) is in accordance with the Malaysia Qualification Framework and Programme Standards of Malaysian Qualifications Agency (MQA). The operating processes in key academic administrative and supporting units, such as the examination and records unit and library, are ISO certified. MMU adopts the MQA Code of Practice for Programme Accreditation for internal QA system with the academic quality dimensions categorised into inputs, QA processes as well as the ultimate QA goals and objectives to be reached as illustrated in the figure below.

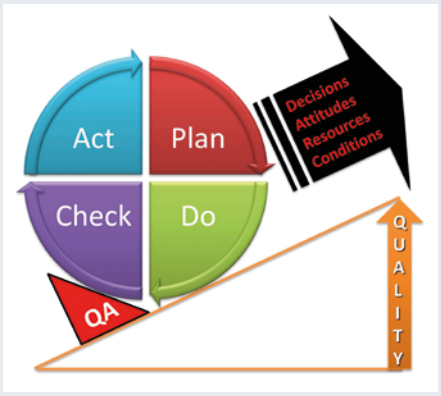

Figure 11 *Quality enhancement at Multimedia University*

The university QA system is focused strongly on individual academic programme enhancement. The programme performance review is conducted by the faculty for each academic semester in terms of staff achievement/development, student performance, accreditation status, industrial collaborations or linked final year projects, graduate employability, entrepreneurship etc. The Deming cycle of PDCA is used for executing continuous quality improvement (CQI) for each academic quality dimension. Quality assurance instruments and mechanisms are used to maintain and assure quality and PDCA allows to bring quality to a higher level and continuously enhance it (see figure 11).

Active participation and feedback from international renowned and established external examiners/ professors, industrial advisory panels, and employers are pursued annually to advise the faculty in ensuring each academic programme is constantly incorporated with up-to-date academic content, syllabus and benchmarked practices. The effectiveness of these schemes to achieve the QA objectives are examined by a comprehensive internal maintenance audit (IMA), organised by the university QA unit, namely the Centre for Quality Assurance and Academic Excellence (CQAAE). The CQAAE is under the university Strategic and Transformation Office overseen by the President. The outcomes of the IMA are reviewed to formulate action plans which are monitored under programme performance review at the university level. The action plans and desired targets are incorporated in the annual assessment of the faculty's performance and the Dean's KPIs even though QA is under the purview of the Dean and supported by the Deputy Dean of Academic Affairs.

Ong Duu-Sheng (MMU, 2014)

Chapter 5

Successful Quality Management Systems

When Does a System Live Up to its Purpose? Part I

5 Successful Quality Management Systems – When Does a System Live Up to its Purpose? Part I

This course book has outlined the basics about quality assurance in higher education and started to discuss main questions on how to implement a QMS. Our following four module course books will continue to address the implementation of a QMS, closing the loop in Module 5 where we will again address the question of implementation at the system level, especially focusing on the linkages of a QMS.

Fulfil EQA?

As a preliminary conclusion (part I), to be successful, a quality management system must on the one hand address and meet the requirements, standards and goals set by the respective EQA system of the country and/or region. Chapter 3.1 has outlined the importance of the external systems, ranging from making higher education accountable to the topic of mobility and recognition and quality enhancement. This partial requirement for a QMS to "live up to its purpose" can be seen to be achieved upon successful accreditation, audit or assessment etc., depending on the respective instrument of the EQA system.

Fulfil IQA?

On the other hand, the system must address and meet the institution's own individual requirements, standards and goals which are in line with the own context and challenges and go beyond those of the EQA systems. In order to reach this purpose, higher education institutions need to set their own transparent criteria of success that can be verified through mechanisms and instruments. This second internal purpose is partially also a goal of EQA systems in some countries which include a focus on enhancement.

EQA & IQA balance

These two sides of the coin emphasise a main requirement that a QMS has to comply with: finding the right balance and exploit synergies between the external and internal context, between EQA and IQA. The stakeholders of teaching and learning play an important role for both sides.

In order to design a system that lives up to its purpose we have tried to summarise what needs to be considered, and have shown how different possibilities, decisions and designs could look like: from the **definition of quality** as a fundament (how can quality be defined?) and possible **quality models** (how can quality be controlled, assured, enhanced and managed?) to the **structures, roles and responsibilities** (how can the system be structured and implemented?).

Looking back at these steps, we have often emphasised considering your own context and we posed the question whether quality and quality assurance concepts, models and instruments from management could be implemented in higher education. Without being able to give you a general formula or answer for your specific case, we want to again point out that the contextual variable is very important for the system to be effective. The same applies to good practice examples from other higher education institutions; they too give no guarantee of being successful in your institution, especially if the source institution is very different from one's own.

We therefore pledge that quality assurance and management need to be designed and modelled inside the single institutions, and not just adopted and implemented with models from outside. In this regard, Stensaker (2007) has introduced the concept of translation which can be used as a maxim when designing and implementing quality management. Westerheijden, Stensaker and Rosa (2007) depict it as follows:

Principle of translation

> *"Translation suggests a more complicated process than the more traditional term of 'implementation'. Implementation suggests a linear, mechanical process of making commands happen, while translation has the image of an active process performed by an interpreter – and much may be lost in translation, as the 2003 movie of that name showed. Successful translation is not just a matter of replacing a word from one language with a word from another, but also must take account of different grammar, syntax, and cultural nuances."*
> ***(Westerheijden, Stensaker, & Rosa 2007, 6)***

Quality is dynamic and so should your system be. HEIs at the initial stages of quality management might less focus on quality enhancement and more on quality control and assurance. In this light, our exemplary main structures that we have outlined (see Chapter 4.1.2), could be seen as being suitable for different stages of your system. One option for new systems we have outlined, is to set it up strong ties to the senior management until it is more mature, minimum standards are reached and faculties, departments and lecturers are involved. Following that, a focus on quality enhancement could be set. A more suitable structural option in that case could be the independent centre, which can offer support and staff development courses with a stronger decentralised approach and less tight link to senior management.

Quality Culture

"Quality culture is a set of group values that guide how improvements are made to everyday working practices and consequent outputs."
Source: Harvey (2004-14). Continue reading online...

Balance between centralisation & decentralisation

Regardless of one's own context and "quality stage", higher education institutions need to find a balance between centralisation and decentralisation. If we take Mintzberg's Professional Bureaucracy organisational type (see Chapter 4.1.1) to describe HEIs, a top-down approach is unlikely to work. A transparent and participative approach is more adequate and likely to be successful and sustainable. A participative approach of all the concerned stakeholders, would produce ownership and could nurture a so called quality culture in the institution, at the level of faculties, departments and lecturers (Kohler 2012, 81). In this sense quality culture is often seen to be the answer to many challenges (Harvey & Stensaker 2008, 438) while it remains unclear however what it really is and how and if these answers can be reached. These questions and the implications of quality culture for the system and daily work, will be further discussed in Module 5.

If we look at instruments like evaluation and accreditation there is a common understanding that they lead to the learning of the involved faculties, departments, study programmes and lecturers. The self-assessment

part, for example, leads to changes the way the actors behave. Putting teaching and learning on the agenda is the basis for quality improvement. A crucial phase is when the first successes have been achieved. Standing still and resting on one's laurels by repeating the processes over and over does not add as much quality improvement or accountability as the first "round" did. Routine, bureaucratisation and window dressing are a big risk. Therefore, quality assurance systems need to bear this danger in mind and be designed to allow constant change. (Schwarz & Westerheijden 2004a, 32)

The TrainIQA modules are conceived with the underlying idea of giving quality managers and their institutions the necessary knowledge, skills, tools and procedures to elaborate and acquire their own view on quality assurance and enhancement in order to develop their contribution for promoting (a) quality (culture) at their respective institutions.

We hope this module course book gave you a broader insight into quality and quality management system in higher education and that it made you eager for more. We wish you good luck in your quality endeavour and are looking forward going part of the way together!

Questions & Assignments

1. All in all, what are the main aspects that should be considered in the process of introducing and running a QMS for your own HEI? Reflect on what has been discussed in the module and summarise your conclusions in a list.

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Annexes

Annex 1 – Definitions of Quality and Standards

Quality	Definition
Exceptional	A traditional concept linked to the idea of 'excellence', usually operationalised as exceptionnally high standards of academic achievement. Quality is achieved if the standards are surpassed.
Perfection or consistency	Focuses on process and sets specifications that it aims to meet. Quality in this sense is summed up by the interrelated ideas of zero defects and getting things right first time.
Fitness for purpose	Judges quality by the extent to which a product or service meets its stated purpose. The purpose may be customer-defined to meet requirements or (in education) institution-defined to reflect institutional mission (or course objectives).
Fitness of purpose	Fitness of purpose evaluates whether the quality-related intentions of an organisation are adequate. It provides a check on fitness for purpose. As such, it is not a definition of quality per se.
Value for money	Return on investment or expenditure is used to assess quality. At the heart of the value-for-money approach in education is the notion of accountability. Public services, including education, are expected to be accountable to the funders. Increasingly, students are also considering their own investment in higher education in value-for-money terms.
Transformation	Sees quality as a process of change, which in higher education adds value to students through their learning experience. Education is not a service for a customer but an ongoing process of transformation of the participant. This leads to two notions of transformative quality in education: enhancing and empowering the student or researcher.

Standards	Definition
Academic standards	The demonstrated ability to meet specified level of academic attainment. For pedagogy, the ability of students to be able to do those things designated as appropriate at a given level of education. Usually, the measured competence of an individual in attaining specified (or implied) course aims and objectives, operationalised via performance on assessed pieces of work. For research, the ability to undertake effective scholarship or produce new knowledge, which is assessed via peer recognition.
Standards of competence	Demonstration that a specified level of ability on a range of competencies has been achieved. Competencies may include general transferable skills required by employers; academic ('higher level') skills implicit or explicit in the attainment of degree status or in a post-graduation academic apprenticeship; particular abilities congruent with induction into a profession.
Service standards	These are measures devised to assess identified elements of the service provided against specified benchmarks. Elements assessed include activities of service providers and facilities within which the service takes place. Benchmarks specified in 'contracts' such as student charters tend to be quantified and restricted to measurable items. Post hoc measurements of customer opinions (satisfaction) are used as indicators of service provision. Thus, service standards in higher education parallel consumer standards.
Organisational standards	Attainment of formal recognition of systems to ensure effective management of organisational processes and clear dissemination of organisational practices.

Table 13 *Definition of quality and standards (Harvey 2012, 10)*

Annex 2 – Summary of Quality Management Models Originating from Business and Industry

Model Adopted	Author, Year	Analysis
Modified (SERVQUAL)	*Ford et al., 1999; Markovic, 2006; Kwan and Ng, 1999; Abdullah, 2006*	■ Intense competition in HE requires assessment of customer views and attention to management processes. ■ Customer satisfaction affected by perceived quality. ■ Priori of important attributes may not transfer across cultures; therefore further research needed. ■ Performance indicators (PIs) tend to measure activity, not education quality, and therefore need to address the student experience.
EFQM	*McAdam and Welsh, 2000; Osseo-Asare Jr and Longbottom, 2002; Hides et al., 2004; Tari, 2006; Calvo-Mora et al., 2006*	■ Integrated map of management issues valued and useful to secure confidence of different stakeholders. ■ Useful as a basis of self-assessment. ■ Tests the relationship between enablers and results. ■ Implementation requires top-level commitment, focus on customer delivery and commitment to medium and long-term programmes. ■ Policy must be the reference point for organisation of resources. ■ Dilemma of applying business principles/language to HEIs. ■ Three to five years before benefits may be evidenced. ■ Challenge regarding managerial skills in HE. ■ Greater benefit if EFQM and national HE control mechanisms were integrated.
Balanced scorecard	*Cullen et al., 2003, Chen et al., 2006*	■ Focus on performance management and evaluation. ■ PIs linked to strategy and management; otherwise can be dysfunctional. ■ Scorecard can be used to manage rather than simply monitor performance.
Malcolm Baldridge award	*Arif and Smiley, 2004*	■ Advantages in operational elements: strategic and budget planning; careers; outreach; and information services. ■ Benefits may be immediate and long standing.
ISO 9000	*Shutler and Crawford, 1998*	■ Defines product of HE as learning of students (British Standards Institute (BSI)). ■ Continuous improvement achievable through preventative action. ■ Less scientific control in educational products than in manufacturing.

Model Adopted	Author, Year	Analysis
Business process re-engineering	*Welsh and Dey, 2002; Sohail et al., 2006*	■ Strategy for assessment of both internal and external stakeholders. ■ Uses technology to underpin quality assurance and enhancement. ■ Devolves some responsibility for assessment to the course level. ■ Enables HEI to become improvement-driven through refocusing core processes. ■ Improvements identified in productivity, service levels and efficiency. ■ Cost-effective method for accountability and improvement purposes.
TQM-related	*Quality management framework (Widrick et al., 2002); five-step programming model (Motwani and Kumar, 1997); TQM (Aly and Akpovi, 2001); service guarantees (Lawrence and McCollough, 2001); Hoshin Kanri model (Roberts and Tennant, 2003); continuous quality improvement (Roffe, 1998); self-rating scales (Pounder, 1999); TQM in HE (Srikanthan and Dalrymple, 2002); QFD (Thakkar et al., 2006; Hwarng and Teo, 2001)*	■ Encourages disciplined thinking about tangible and intangible aspects of academic activities and operational aspects required in design and delivery of courses. ■ Improvements identified in customer service, university processes, staff and faculty morale, course quality and personnel hiring. ■ Involvement of students, faculty and funding/statutory bodies recommended. ■ Much implementation of TQM in HEIs in the USA has been in finance/administration services. Extension beyond these to teaching is a major challenge. ■ TQM appropriate for service aspects, but a different approach required for teaching and research. ■ Challenges lie in resistance to change and in lack of resources, leadership and campus-wide strategic planning. ■ Difficulty in defining role of students as co-producers, consumers or customers. ■ Other limitations relate to: difficulty in defining outputs; challenges related to leadership skills; TQM requirement for teamwork/customer involvement is not congruent with autonomy of academic staff; people rather than process orientation; level of acceptance of TQM principles; bureaucratic structures; and complexity of application to HE.

Table 14 *Quality management models applied in HEIs (Becket and Brookes 2008, 51 et seq.)*

Annex 3 – Summary of Quality Management Models Developed for Higher Education

Model	Author	Model Overview
Model for quality management in higher education	*Srikanthan and Dalrymple (2002, 2003, 2004), Australia*	■ Approach is based on evidence from educational literature. ■ Four methodologies: transformative; engagement theory of programme quality; methods to develop a university of learning; strategies for achieving a responsive university. ■ In teaching and research, students are participants and the focus is on their learning. ■ Implementation of 2002 model focusing on philosophies and approaches to student learning and methods of engendering a dynamic collaboration around student learning. ■ Recommends a move from the ritual of teaching to focus on student learning, academic productivity and organisation performance. ■ Radical change using student learning as the central criterion.
Excellence model	*Pires da Rosa et al. (2001, 2003), Portugal*	■ Based on empirical research, nine criteria supporting self-analysis and acting as a source for quality improvement and leading strategic development. ■ Quality management associated with evaluation activities covering teaching and research and regarded by participants as positive.
Academic award model	*Badri and Abdulla (2004), UAE*	■ Concerned with teaching, research and services to develop a more explicit approach to faculty rewards/awards. ■ Model includes criteria for diversification, course development, material production, student evaluation, course files, teaching portfolio and contributions to conferences and workshops.

Model	Author	Model Overview
Model to assess quality of student experience and learning outcomes	*Tam (2002, 2006), Hong Kong*	■ Assessment of quality in HE should be measured in terms of student growth. This calls for attention to student outcomes, including cognitive and non-cognitive aspects of learning, skills and satisfaction with university environment. ■ Investigates relationship between university experience and student outcomes as a means of determining a university's success in meeting its educational goals and proposes approach oriented to this. ■ Instrument designed to help understand the student experience.
Multi-models of quality in education	*Cheng and Tam (1997), Hong Kong*	■ Identifies seven models of quality in education and emphasises the complexity of pursuing educational quality. ■ Effectiveness and quality are concepts used to understand performance, so approach needs to be comprehensive and take account of longer-term goals. ■ Cross cultural issues require further investigation.
Performance measures for academic departments	*Al-Turki and Duffuaa (2003), Saudi Arabia*	■ Adopts a systems approach and identifies performance measures to evaluate productivity, efficiency, effectiveness, internal structure, growth and development. ■ Hierarchical performance measurement model is based on outcome measures for each category – input, process and outputs.
Internal audit	*Reid and Ashelby (2002), UK*	■ Identifies tangible benefits from internal audits, such as significant cultural changes, which can reinforce quality enhancement, create greater staff involvement, as well as give benefits to the institutions. ■ Considers programme management, development and evaluation, staff development, assessment of students, external examining processes, collaborative provision and value added.

Model	Author	Model Overview
Internal audit	*Becket and Brookes, (2006), UK*	■ Model to evaluate quality management approaches in departments. ■ Six dimensions identified: internal/external perspective; qualitative/quantitative information; snapshot/longitudinal timespan; quality dimension assessed; system elements, and enhancement or assurance focus.
Quality dimensions framework	*Owlia and Aspinwall (1996), UK*	■ 30 different quality characteristics identified for HE, using generalised dimensions defining quality drawn from manufacturing/software and service methods.
Programme evaluation model	*Mizikaci (2006), Romania*	■ Considers HE as a system (input, processes and outputs) for programme evaluation and identifies social, technical and management systems within these.
Quality management framework	*Grant et al. (2002, 2004) Widrick et al. (2002), USA*	■ Identify dimensions of quality in HE – quality of design, conformance and performance. ■ Quality of performance is least likely to be considered.
Subject quality assurance system	*Martens and Prosser (1998), Australia*	■ University-wide system of quality assurance to enable systematic review and enhancement of individual subjects, allowing for discipline-specific requirements. ■ The focus is on the improvement of student learning.
ISO-based TQM model	*Borahan and Ziarati (2002), Turkey*	■ Combine TQM, Malcolm Baldridge and ISO 9000 principles, drawing on USA and UK practices to identify quality criteria. ■ Building blocks for quality assurance and control include: programme management and operations; curriculum design content and organisation; teaching, learning and assessment; student support and guidance; and quality assurance and enhancement.
Five-phase TQM implementation model	*Motwani and Kumar (1997), USA*	■ Identifies the issues which institutions need to consider when implementing TQM in five phases: deciding; preparing; starting; expanding or integrating; and evaluating.

Table 15 *Quality management models developed for HE (Becket and Brookes 2008, 52 et seq.)*

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