Solveig Randhahn and Frank Niedermeier

Quality Assurance of Teaching and Learning in Higher Education Institutions

Training on Internal Quality Assurance Series | Module 3

Solveig Randhahn and Frank Niedermeier (Eds.)

With financial support from the

Federal Ministry
for Economic Cooperation
and Development

Imprint

This e-publication is part of the Training on Internal Quality Assurance Series which is also published as paperback (ISBN: 978-3-7345-7689-8) and distributed in book shops worldwide. More information is available at http://www.trainiqa.org

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Edition: First edition

Layout: Nikolaj Sokolowski, Randi Ramme

Publisher: DuEPublico, Duisburg/Essen, Germany

DOI: 10.17185/duepublico/43224

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Please cite the use of our course book series in presentations, trainings, papers etc. according to scientific standards. You can cite this book as:

Randahn, S. & Niedermeier, F. (2017). Quality Assurance of Teaching and Learning in Higher Education Institutions. Module 3. In Randhahn, S. & Niedermeier, F. (Eds.) *Training on Internal Quality Assurance Series*. Duisburg/Essen: DuEPublico. Retrieved from: http://dx.doi.org/10.17185/duepublico/43224

Acknowledgment

Our modules and books have been prepared and written in a joint effort of the University of Duisburg-Essen and the University of Potsdam under the DIES (Dialogue on Innovative Higher Education Strategies) Programme conducted by the German Academic Exchange Service (DAAD) and the German Rectors' Conference (HRK) with funds from the Federal Ministry for Economic Cooperation and Development (BMZ). We take this opportunity to thank the DIES Programme and all the partners from Africa, Europe and Southeast Asia who were involved in the development process and express our deepest gratitude for the received support, without which the modules and course books would not have been possible to realise.

We want to further express our sincere gratitude for the most valuable support and contributions from the involved partners

- Autorité Nationale d'Assurance Qualité de l'Enseignement Supérieur (ANAQ-Sup), Sénégal,
- ASEAN Quality Assurance Network (AQAN),
- ASEAN University Network (AUN),
- Association of African Universities (AAU),
- Conseil Africain et Malgache pour l'Enseignement Supérieur (CAMES),
- European Association for Quality Assurance in Higher Education (ENQA),
- National Accreditation Board (NAB), Ghana,
- National Council for Tertiary Education (NCTE), Ghana,
- National Universities Commission (NUC), Nigeria,
- Southeast Asian Ministers of Education Organization Regional Centre for Higher Education and Development (SEAMEO RIHED),
- United Nations Educational, Scientific and Culutral Organization (UNESCO),
- University of Professional Studies Accra (UPSA), Ghana

and especially from Prof. Dr. Shahrir Abdullah, Richard Adjei, Prof. Dr. Goski Bortiorkor Alabi, Prof. Dr. Bassey Antia, Prof. Dr. Arnulfo Azcarraga, Gudrun Chazotte, Assoc. Prof. Dr. Tan Kay Chuan, Kwame Dattey, Prof. Dr. Ong Duu Sheng, Prof. Zita Mohd. Fahmi, Mae Fastner, Assoc. Prof. Dr. Nantana Gajaseni, Robina Geupel, Josep Grifoll, Juliane Hauschulz, Dr. Pascal Hoba, Dato' Syed Hussein, Benjamin Jung, Prof. Abdel Karim Koumare, Dr. Vipat Kuruchittham, Prof. Dr. Chiedu Mafiana, Prof. Dr. Duwiejua Mahama, Barbara Michalk, Prof. Dr. Le Quang Minh, Nguyen My Ngoc, Johnson Ong Chee Bin, Concepcion V. Pijano, Prof. Dr. Philipp Pohlenz, Sonja Pohlmann, Dr. Suleiman Ramon-Yusuf, Dr. Sylvia Ruschin, Dr. Chantavit Sujatanond, Dr. Oliver Vettori and Marc Wilde.

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List of Abbreviations

AQG	Analytic Quality Glossary
AQAF	ASEAN Quality Assurance Framework
AQRF	ASEAN Qualifications Reference Framework
AUA	African University Association
AUN	ASEAN University Network
BA	Bachelor
CB	Course Book
CHEDQE	Centre for Higher Education Development and Quality Enhancement, University of Duisburg-Essen
COL	Commonwealth of Learning
ECTS	European Credit Transfer System
EHEA	European Higher Education Area
EHEA-QF	European Higher Education Area – Qualification Framework
ELO	Expected Learning Outcomes
ESG	European Standards and Guidelines
HE	Higher Education
HEI	Higher Education Institution
IJTLHE	International Journal of Teaching and Learning in Higher Education
ILO	Intended Learning Outcomes
IQA	Internal Quality Assurance

IUCEA	Inter-University Council for East Africa
LO	Learning Outcomes
MA	Master
PDCA	Plan-Do-Check-Act or Plan-Do-Check-Adjust
PhD	Doctor of Philosophy
QF-EHEA	Qualification Framework of the European Higher Education Area
SCL	Student Centred Learning
SWOT	Strengths, Weaknesses, Opportunities and Threats
TCL	Teacher Centred Learning

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Preface

Introduction to the Module

Prerequisites for the Module

- Learners have a fundamental understanding of the theoretical concepts of quality assurance and they are able to adapt them for their institution,
- they are able to apply different techniques and methods of evaluation processes at their institution.

Intentions of the Module

Module 3 focuses in detail on quality assurance in teaching and learning. The course book starts with an introduction to the linkage between study programme development and quality assurance and discusses the role of quality managers in the communication and information processes of programme design and revision. It focuses on the involved stakeholders and on how to systematically plan and organise the necessary processes of developing and designing a programme and its curriculum. Therefore, three key areas of programme and curriculum development are introduced to the participants, subdivided into a) activities that focus on the content of programmes, b) methodological activities and c) organisational activities. Based on this, participants learn how to support teaching staff in defining study programme objectives, designing curricula that are based on competences and learning outcomes, as well as on adjusting curricula to internal and external standards and guidelines. They also learn how to render information for specific target groups of the study programme in a transparent way.

Furthermore, the quality managers get familiar with procedures to evaluate and revise study programmes. This also includes external evaluations and their effective linkage to internal quality assurance on programme level.

On successful completion of the module, you should be able to…

- determine key tasks of a quality manager with regard to programme and curriculum development,
- identify central instruments that design study programmes in form and content, and draw up and manage the diverse processes of curriculum development,
- have a basic understanding of setting up an evaluation self-report to revise study programmes,
- recognise relevant organisational steps to be considered when developing and revising study programmes,
- recognise the importance of communication and collaboration with regard to programme development,
- identify relevant stakeholders for the development of study programmes and consider and integrate their (differing) expectations in the curriculum,
- determine how to best benefit from external quality assurance and make use of it for the design and revision of curricula and study programmes,
- identify how to link external and internal quality assurance effectively. Based on this, you will be able to adjust the respective internal processes, e.g. with regard to your own internal quality management system.

Chapter 1

Quality Assurance of Study Programmes

1 Quality Assurance of Study Programmes **13**

1.1 Why Programme Design and Revision Is Important for Quality Assurance in Teaching and Learning **13**

1.2 The Role of Quality Managers in Programme Development - Challenges and Opportunities **18**

1.3 What Programme and Curriculum Development Is About **20**

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

- explain why programme design and revision is important for quality assurance,
- explain the key steps to develop study programmes/curricula according to the quality cycle,
- identify faculties' or teachers' needs of support when developing study programmes and designing curricula,
- determine key tasks of a quality manager with regard to programme/curriculum development.

1 Quality Assurance of Study Programmes

1.1 Why Programme Design and Revision Is Important for Quality Assurance in Teaching and Learning

Teaching and learning is a core competence of higher education institutions (HEI). Therefore, designing, developing and implementing study programmes is nothing new, but something that has been done for a long time and with appropriate expertise. Triggered through the diverse higher education processes since the turn of the millennium, we can observe that the question of a systematic and structured study programme development has gained importance in higher education debates, both with regard to management but also concerning a didactical based curriculum design.

In the first course book you already became familiar with the discussions about the multiple societal, economic and political change processes that have led to a so called global knowledge society (UNESCO 2005). These processes also provoke changes at higher education institutions where a great bundle of education, science, innovation, and with it knowledge, is transported to society (see Module 1).

In this light, multiple reforms in Europe have been started during the last decades. The Sorbonne Declaration of 1998 and the following Bologna Process are the cradle in which the idea of a common European Higher Education Area was born and put forward. At the same time, this process is meant to strengthen the common European economic power. In sum, the following objectives are pursued by the Bologna declaration of 1998:

- increasing the compatibility and comparability of European higher education degrees,
- implementation of a comparable three cycle degree system for undergraduates (Bachelor) and graduates (Master and PhD),
- implementation of a system of credits – as in the ECTS,
- the promotion of mobility of students and scientific staff,
- promotion of European cooperation in quality assurance and
- promotion of the necessary European dimensions in higher education.

Also in other regions around the world there are several initiatives which promote quality and quality assurance for the purpose of compatibility, comparability and the promotion of mobility of students, graduates and staff. The boxes below will give a short overview of initiatives in Africa and Southeast Asia.

Initiatives in Africa

The UNESCO addresses questions that refer to teaching and learning for a sustainable future on the continent. Among others, it offers professional development modules that focus on teaching and learning strategies at higher education institutions (see UNESCO 2010).

Another initiative refers to the Commonwealth of Learning (COL). Responding to the increasing international emphasis on quality in higher education, this intergovernmental organisation has designed a handbook on institutional review and improving performance to become a learning organisation with systematic and sustainable quality assurance structures (see Clarke-Okah & Gatsha, 2010). To get a better understanding about the current state of affairs in higher education quality assurance, the World Bank has published a research study on several Sub-Saharan African countries (Cameroon, Ghana, Mauritius, Nigeria, South Africa and Tanzania) (see World Bank 2007).

Under the roof of the Inter-University Council for East Africa (IUCEA) long-standing academic collaborations on higher education quality assurance have brought academics and regional academic authorities closely together. Among others, the IUCEA has published a "Handbook for Quality Assurance in Higher Education", the so-called "Roadmap to Quality" (see IUCEA/DAAD 2010). It includes four thematic fields:

1. Guidelines for self-assessment at programme level

2. Guidelines for external assessment at programme level

3. Guidelines for self-assessment at institutional level

4. Implementation of a quality assurance system

Based on this Roadmap, the IUCEA aims at "maintaining high and comparable academic standards in higher education regionally and internationally […]…" (see IUCEA 2013). Currently, the IUCEA is developing a regional qualification framework for higher education in East Africa. (see IUCEA 2013).

Initiatives in ASEAN

The ASEAN University Network (AUN) has been active in the field of regional promotion of quality assurance of teaching and learning with trainings and programme assessments since 2007. The AUN-QA Network with currently 30 members and 16 AUN-QA Associate Members, is conducting external quality assessments on study programme level according to own criteria which are laid down and in this context offers specific trainings for university quality managers to conduct the process of external peer review of study programmes according to AUN-QA criteria. Currently AUN-QA is working also on an institutional form of evaluation.

Since 2011, ASEAN-QA, a joint ASEAN-European initiative, is promoting the harmonisation of higher education in the region by offering trainings and activities to support the capacity building of quality assurance for both external as well as internal quality assurance. The seven partners consist of key organisations in the region and Europe. ASEAN-QA is conducted under the umbrella of the joint Dialogue on Innovative Higher Education Strategies (DIES) programme of the DAAD and HRK. In 2013, ASEAN-QA has conducted over 22 programme assessments in 8 ASEAN countries with international teams of peers coming from ASEAN and Europe.

A task force to develop the ASEAN Quality Assurance Framework (AQAF) has been established since 2011 and is chaired by the ASEAN Quality Assurance Network (AQAN). It comprises generic principles and statements in regard to external and internal quality assurance in higher education.

A recent initiative which started in 2015 is the European Union Support to Higher Education in ASEAN Region (SHARE). The project is building on exchange between EU and ASEAN. Among the objectives of policy dialogue, mobility and exchange, it focuses on the objective of enhancing quality in the region and support ASEAN in the implementation of a regional qualifications framework (AQRF) and the AQAF.

The two examples above from Africa and South-East Asia give an idea about the approaches of processing change in the field of teaching and learning at higher education institutions according to global and local demands. These demands can differ a lot, including scientific interests but also societal, economic and/or political requirements and they go hand in hand with questioning and revising the established structures, programme curricula and content, communication flows, stakeholders and their different interests:

- What are the expectations on study programmes of different stakeholder groups and which priority do they have for designing and revising curricula?
- How should an increasing student number be dealt with?
- What are competitive study programmes and how do higher education institutions manage to stay competitive in this regard?
- What data and information is needed to answer questions about the success of study programmes? What possibilities do higher education institutions have to generate these data and what conditions (e.g. data protection) have to be considered?

- What financial, material and human resources are available for teaching and learning?
- What internal and external regulations have to be considered?

Questions like these and their discussion are embedded in the already mentioned paradigm shift from an input- to an output-oriented approach in teaching and learning (see Chapter 2 of this Module and Module 1). In this new scheme, all members of a faculty play a role and contribute to maintaining a learning-centred environment (Barr & Tagg 1995).

> *"Curriculum design is based on an analysis of what a student needs to know to function in a complex world rather than on what the teacher knows how to teach."*
> ***(Miller 2006, 2)***

Lecturers are not the providers of instructions to students anymore, but they act as learning facilitators. The starting point is the question what students should know and which skills and competences they should have achieved when completing a study programme (Barr & Tagg 1995). Based on this, appropriate teaching and learning strategies have to be developed that help students to reach the defined competences. Learning is not only a passive adoption of plenty of knowledge. Dealing with diverse and comprehensive information means learning how to differentiate, analyse and use this information systematically and actively according to the respective questions and problems they refer to.

A Short Insight Into Higher Education Discussions in Germany

In Germany, the shift to a competence-based orientation and the related requirements on teaching and learning is discussed critically at higher education institutions. One argument refers to the traditional idea of higher education that refers to teaching and research that offers students freedom without limits to discover, investigate and develop science. Based on this, it is criticised that the focus on defining key competences includes a very close connection to the labour market which is contradictory to a scientific culture of freedom in research and teaching that should not be connected to any special needs and requirements from society, the economy or politics. In contrast, advocates of the reforms argue that it is due to this freedom without limits that students are not able to recognise the competences to be achieved in partially rather complex study programmes. From their point of view this might also be a reason for observable increasing drop-out rates and/or long study periods.

Dealing with the paradigm shift to a learning-centred approach is rather challenging, especially because for most of us it means changing our attitudes with regard to our teaching and learning strategies (Barr & Tagg 1995):

Lecturers have to be aware that this approach not only includes the instruction of knowledge and memorising content but that it focuses on students ability to deal actively with subject-matters, meaning to discuss, reflect and use information of specific objectives and topics. Hence, there is a difference, if a lecturer offers a

teaching-learning scenario that is based on an input-oriented instruction of content or if s/he acts as a coach for students learning process, supporting them to design and develop their competences on a subject-matter, but also their personalities and their ideas on societal responsibilities of social-reformative issues (Pratt 2002).

To be able to act according to this approach, also lecturers have to show willingness for further education with regard to their teaching strategies and the question on how to revise their teaching methods according to the needs of the student target group it is meant for (see Chapter 3 of this Module).

Of course, a paradigm shift as such cannot be implemented in a day. We have to consider historically grown structures and mentalities when developing new strategic approaches in teaching and learning. In addition, not everything that we did in the past is necessarily bad for the future. As Peter Senge puts it, "the 'solutions' from yesterday are our todays' problems" (Senge 2011, 73). Therefore, we also have to consider that we once had good reasons to do things in a certain way, even though we might consider them today as challenging and not suitable anymore. That means, we always have to think about where it makes sense to keep established structures as they are, or where it is possible to change something because it facilitates more efficient and effective processes to reach defined objectives and to deal with the respective requirements.

With regard to designing and revising study programmes this goes hand in hand with an effective and efficient process coordination between faculties, administration and management. Besides correlations of these internal stakeholders, there are also external requirements that have to be considered, such as recommendations or regulations from ministries and national regulatory bodies or specific labour market needs.

Based on this, the purpose of a quality management system should be to support higher education institutions to be able to deal with these internal and external conditions. Therefore, quality managers can play an active and supporting role. Which role this might be, which functions this might include, and which methods are adequate to achieve a systematic structured quality loop with regard to study programme development shall be analysed and discussed in this course book.

Questions & Assignments

1. In how far do you consider regional collaborations on quality assurance as helpful for your own region? What might be issues to be included, and who are the stakeholders potentially interested in such collaborations? What are the challenges to be considered?

1.2 The Role of Quality Managers in Programme Development - Challenges and Opportunities

Last but not least, the success or failure of study programmes depends on the people who – as "motors" which make the vehicle drive – are responsible to enhance, guide, support and facilitate the realisation of a programme and with it contribute to guaranty the quality of how to satisfy internally and externally determined objectives and expectations for such programme offers.

Basically, the role of a quality manager with regard to study programme development refers to a rather sensitive field which is determined by different responsible and involved stakeholders. To be able to define the function of a quality manager in this context, first of all, we have to be clear about such different stakeholders, their motivations, objectives and expectations. That means, we have to ask questions such as: Who is involved and how? What does involvement mean? Who is responsible and how? What are the limits and opportunities of involvements and responsibilities?

In some countries, study programme development and the respective discussion about subject-matters, learning outcomes, teaching and learning strategies, assessment methods etc. are one of the essential responsibilities of lecturers: They are the experts with regard to their subject-matter, which is why they should develop and design study programmes and their curricula. A quality manager normally does not have this particular subject- and scientific-based expertise. At a first glance, one might think that in this case quality managers are not eligible to support and give advice to faculties and lecturers with regard to programme development at all.

In other countries, study programmes and their curricula are determined in a standardised way on national level by ministries or national regulatory bodies. In this case, at a first glance one might think that higher education institutions do not have to deal with questions about programme and curriculum development because they are not involved. But on the other hand, when it comes to quality standards and suitability for use of study programmes, it might be useful to consider the experiences and innovative ideas from members of higher education institutions. Hence, study programme development and revision can be a good possibility for collaboration between higher education institutions and national regulatory bodies, sharing ideas about how to design and revise programmes and curricula.

Quality managers can play a key role as interface who support such collaboration processes by collecting, bundling and making transparent relevant data and information and connecting the responsible authorities to discuss and agree on possible action approaches with regard to their programme strategies.

Focussing on the internal processes at higher education institutions, quality managers can be assigned to different functions in programme and curriculum development to support and facilitate faculties, administration or the top management. To define these functions, we have to take a closer look at the respective needs and expectations of the involved stakeholders on programme and curriculum development.

Such needs and expectations also depend on the personal attitudes of the involved stakeholders. There can be those who see themselves as a pure executing wheel of a process and others who prefer to play a more active and creative role. Quality managers could deal with both attitudes: They can help to bring together such different attitudes and mentalities when it comes to programme development. They can support and put forward communication processes and participation of these different stakeholder groups. They can inform others about existing internal and external frameworks, conditions and decision-making processes which are relevant for the teaching and learning field. Based on this, they can structure and coordinate systematically resulting activities and workflows that help to achieve the previously defined objectives of the programme offers. This also includes designing teaching and learning programmes according to the respective needs and giving support on how to use them. For example, those lecturers who play a more passive role can be encouraged to try new teaching and learning strategies that support students in achieving the defined learning outcomes of a course. Those lecturers who share a more active attitude can be motivated to go a step further and to consider even more innovative approaches with regard to their teaching and learning strategies.

In sum, a quality manager can give lecturers the tools which they need to deal with current requirements and challenges with regard to their courses or study programmes in total.

Quality managers as interface for faculties, administration and top management

Based on this, there is a rather broad spectrum in teaching and learning in which a quality manager can contribute and support lecturers, faculties as well as the administration body and the top management. Some of these key issues are summed up in the following list and will be explained in the following chapters.

- Inform about the paradigm shift from teaching to learning and what it means with regard to programme and curriculum development,
- support the conception of study programmes, the definition of programme objectives and the deduction and formulation of learning outcomes at course level (this can also be done together with experts for teacher training, where possible),
- presenting/offering innovative teaching and learning strategies that help students to achieve the expected learning outcomes,
- presenting/offering assessment techniques and criteria that are appropriate to assess the respective learning outcomes,
- informing, supporting and assisting the administrative processes that study programmes are connected to (e.g. designing templates for course descriptions, certificates, transcripts of records, examination regulations, moderating workflows etc.),
- support the realisation of internal and external evaluations of study programmes (e.g. developing questionnaires and interview guidelines for surveys, organisational support with regard to evaluation processes in total (which may also include other forms of evaluation such as a document analysis or group interviews etc.)).

Support and assistance of faculties and staff who are involved in programme and curriculum development means that quality managers facilitate the development and design of adequate solutions and ways of action for the respective questions in teaching and learning. Of course, such a role includes opportunities but also limitations. For example, too many templates, checklists or pre-defined workflows affect the risk of an overarching formalisation and bureaucratisation of a study programme, neglecting the chance for own initiatives

and innovative trial and error. Quality managers should have in mind such contradictions and formalise processes only where it is helpful and meaningful for the work of the participating stakeholders. As John Biggs has put it: “educational considerations should prevail over administrative convenience” (Biggs 1996, 15).

Questions & Assignments

1. Find out what the necessary processes and activities are with regard to programme development at the faculties of your institution and consider who participates in these processes and how communication-flows between these people are organised. Try to find out about challenges that have to be confronted and what is being done or what could be done to deal with them.

1.3 What Programme and Curriculum Development Is About

Developing programmes and designing curricula are a key element of assuring and enhancing quality in teaching and learning. Basically, this includes structuring and designing programmes in such a way that students are able to achieve and actively show competences in a certain field of study in a limited study period.

Programme development

Programme and curriculum development are closely related to each other. While programme development also includes planning and managing and organisational aspects to establish a programme, curriculum development refers to the content-related and didactical design of the programme (the curriculum, so to speak). According to this, we will consider curriculum development as part of programme development.

Curriculum development

The Analytic Quality Glossary (AQG) defines a curriculum as “the embodiment of a programme of learning [that] includes philosophy, content, approach and assessment” (Harvey 2004-15).

Wojtczak (2002) gets more detailed with regard to the curriculum and talks about “an educational plan that spells out which goals and objectives should be achieved, which topics should be covered and which methods are to be used for learning, teaching and evaluation” (Harvey 2004-15).

Based on this, programme development includes a broad field of different targets to be considered. To get an overview, we can categorise these targets into:

1. Content-related targets
2. Methodological targets
3. Organisational targets

Profiling a programme and defining qualification objectives and learning outcomes are content-related targets

Content-related targets of programme development refer to the discussion of defining coherent and adequate objectives to be achieved in the programme. These objectives can differ, sometimes they can even be contradictory. First of all, the question is who the target group of a study programme is, that is to say which students shall be reached with the programme. In addition, further objectives exist, such as scientific objectives of the faculty or strategic objectives of the institutional top management. Besides internal, there also exist objectives of external stakeholders such as potential future employers, ministries or other institutions that have an interest in well-qualified graduates. The discussion about these stakeholder groups plays an important role when it comes to decide which needs and requirements have to be considered when defining the objectives of a study programme with regard to subject-related qualifications but also multidisciplinary core competences.[1]

Quality managers can facilitate and structure these discussions. For example, they can collect and summarise these multiple and diverse requirements and, if possible, already set some recommendations for prioritisation and how to consider certain expectations in the strategic planning and conceptual design of study programmes. Based on this, the defined qualification objectives and subject-matters to be covered have to be structured with regard to the competences to be achieved in the programme. According to this, learning-outcomes on module and/or on course level can be defined.[2]

Questions about the conceptual design, the definition of qualification objectives as well as learning outcomes on course level will be discussed more in depth in Chapter 2 of this course book.

Closely related to the content-related targets are the **methodological targets**. These include to set the expected learning outcomes of a curriculum in a didactical chronology (= choreography of the curriculum). Therefore, questions to be considered are such as the following: How to design a course didactically? How to combine obligatory and optional courses? Which assessment techniques are suitable to assess the expected learning outcomes? Is the expected student workload appropriately calculated to make students achieving the expected learning outcomes? What are appropriate teaching and learning strategies to facilitate students to achieve the expected learning outcomes?

Constructive alignment and programme evaluation are methodological targets

These questions refer to the concept of **“constructive alignment”**, which describes the correlation of the three elements learning outcomes, teaching and learning strategies and assessment techniques (Biggs, 1996). In short, this means to develop assessment formats that are suitable to assess the expected learning outcomes and to grade them based on appropriate criteria. Considering this, lecturers can develop appropriate teaching and learning strategies that facilitate students to achieve the expected learning outcomes and to be well prepared for the exams.

1 In this course book, the terminology core competences refers to „achievable, general skills, attitudes and knowledge elements that support being able to find problem solutions or achieving other new competences in even more content-related areas. They shall help to reach competences that are relevant for individual but also societal requirements and needs“ (own translation from H. Orth 1999, 107).

2 We will only refer to course level in the following. Nevertheless, the explanations can be transferred in the same way on module level as well.

In practice, this approach includes various challenges for lecturers: First of all, they have to make clear what they want their students to learn on which performance level. Based on this, they have to explain how they will evaluate and grade the performance level of that learning. Finally, they have to support students on how to learn autonomously, effectively and efficiently to reach the desired performance level. This also includes considering differing sociographic conditions such as origin, disciplines, socialisation etc. which determine students' activities and decisions. Trying to understand the students' perspectives is fundamental to develop appropriate learning methods which support students to achieve the expected learning outcomes.

Chapter 3 will give an introduction to the concept of "Constructive Alignment" and discuss the question which role quality managers can play in this context.

Administrative processes and workflows are part of organisational targets

Besides content-related and methodological targets, finally **organisational targets** have to be considered when developing study programmes. These refer to the administrative processes and workflows which are necessary to organise and implement programmes. Key questions to be clarified are for example: Which teaching capacities are available? How to manage the admission procedures? How to organise the design and approval of examination regulations? How to organise assessment procedures? How to organise internships or study semesters abroad during the course of study? How to deal with the recognition of external records? How to design and organise the certification of graduation? – The administrative processes and workflows that refer to these questions have to be considered continuously and parallel to the content-related and methodological design of study programmes. A more detailed discussion of how to organise study programmes is part of Chapter 2.

In practice, the described three target fields of content, methodology and organisation are linked to each other and have to be managed simultaneously. Summarised, an effective strategy to organise these targets systematically for the development and revision of study programmes is the so-called **"Backward Design"**. It consists of the following steps:

1. Defining qualification objectives of a study programme: Qualification objectives to be achieved in a study programme are described by defining general learning outcomes, students should have acquired in terms of "knowing" and "doing" after completing the programme.
2. Admission requirements: Depending on the qualification level to be achieved with the designed study programme, students might be expected to bring along competences. For example, to be accepted for a masters' degree, students might need a bachelor degree in the respective field of study; or to start a bachelor programme, students might need a certain level of high school qualification. Such admission requirements can differ a lot between and in different countries, or even between higher education institutions, depending on the respective education systems.
3. Study programme and curriculum design: Knowing the expected qualification objectives on programme level as well as the admission requirements, one can start to design the curriculum of a study programme. Based on the qualification objectives on programme level, now, expected learning outcomes and the content of the different courses can be defined. In the following, one has to decide which competences shall be assessed, which assessment techniques are suitable to do so and what are effective teaching and learning methods that help to achieve the learning outcomes. Finally, all these different components have to be integrated to form a comprehensive curriculum for the study programme.

4. Implementation/Review of a study programme: The designed study programme has to be approved internally (faculty level and institutional level) and externally (i.e. ministry, regional academic authorities, accreditation agencies) according to certain agreed procedural management steps.

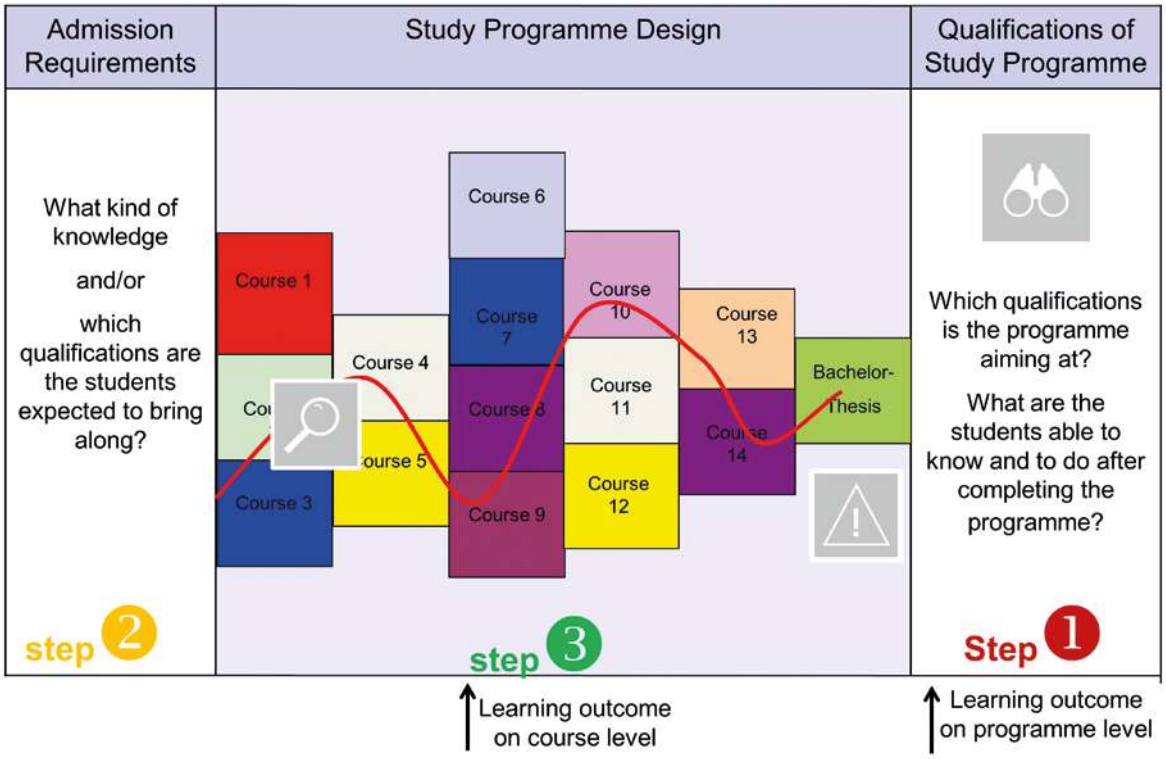

Figure 1 *Backward design as effective strategy when designing/revising curricula (Ruschin/CHEDQE)*

Questions & Assignments

1. Please describe the procedures for programme development at your higher education institution (or in your country in general).
2. What would you like to change with regard to programme development at your institution and why?

Further Reading

- The Homepage of the "International Journal of Teaching and Learning in Higher Education" (IJTHE) offers a broad collection of articles referring to teaching and learning in higher education: IJTLHE (2015). International Journal of Teaching and Learning in Higher Education. Retrieved on March 10, 2015, from http://www.isetl.org/ijtlhe/top10.cfm?org=
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Chapter 2

Study Programme Development and the Learning Outcome Approach

2 Study Programme Development and the Learning Outcome Approach **27**

2.1 How to Define and Use Competences and Learning Outcomes in Study Programmes. **27**

2.2 Conceptualisation of Study Programmes. **37**

2.3 Curriculum Development: Defining Learning Outcomes on Course Level **43**

2.4 Organisation of Study Programme Development **46**

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

- define and differentiate competences and learning outcomes,
- conceptualise a study programme considering key objectives and requirements of internal and external stakeholders,
- define learning outcomes on course level and to apply them appropriately, considering different cognitive levels according to Blooms' revised taxonomy,
- support systematically the development of a study programme.

2 Study Programme Development and the Learning Outcome Approach

2.1 How to Define and Use Competences and Learning Outcomes in Study Programmes

The paradigm shift from teacher-centred-learning (TCL) to student-centred-learning (SCL) implies an education approach that is based on competences rather than on subject matters. That means that study programmes and courses are no longer only described in terms of content, but in terms of expected learning outcomes (ELO) too. For lecturers, the key question is no longer what kind of knowledge should be transferred to the students but rather: What do I want my students to know and to be able to do after completion of the course or study programme?

According to this, the paradigm shift from teaching to learning implies that lecturers support and facilitate students in developing both subject-specific and general competences (e.g. personal, social or methodical competences) on different knowledge levels by using adequate teaching and learning methods. The challenge lecturers and students are facing is rather to learn how to identify relevant information and to select, analyse and apply these in different context matters to solve problems and tasks. Based on the idea of lifelong learning, access to attractive study programmes should be possible for many prospective students. They should be encouraged to go through the curriculum and to graduate with a certificate that opens new perspectives for their future life.

Hence, the student-centred approach focuses on qualification objectives, which are specified in competences to be developed in a study programme.

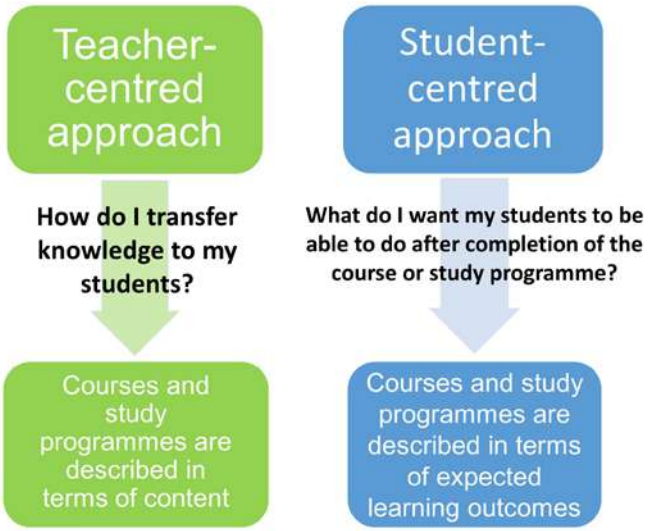

Figure 2 *Teacher- and student-centred approach (adapted from CHEDQE)*

Before continuing, some concepts should be specified and defined:

Objectives

Objectives give a more specific statement of teaching intentions, indicating a more specific area of what the teaching of a course wants to achieve (Kennedy, Hyland, & Ryan 2006, 6).

Example:
"Students will understand the impacts and effects of different behaviours and lifestyles. Based on that they will learn to make examined, principled decisions that guide their actions as responsible global citizens."

Competences

Competences can be generally defined as „the ability to act within a given context in a responsible and adequate way, while integrating complex knowledge, skills, responsibilities and attitudes" (Van der Blij 2002; Kennedy, Hyland, & Ryan 2006).

The German scientist Prof. N. Schaper defined a concept of academic competences that consists of the following aspects (Schaper 2012, 29):

- Flexible employability in discipline-related fields of activity
- Concrete problem-solving in discipline-related fields
- Systematic use of scientific methodologies to deal with complex and new situations and tasks
- Knowledge-based dealing with situations, critically reflecting theories and methodologies
- Capable of reflecting on ones' own activities and reflexive structuring of new situations

Competences can be subdivided into subject-specific competences (related to a specific field of study) and generic competences (comprehensive, related to any field of study).

Examples for Subject-Specific Competences (Project Tuning Educational Structures in Europe)[3]:

In Mathematics: After completing the course, students should be able to…

- construct and develop logical mathematical arguments with clear identification of assumptions and conclusions
- deal with different levels of abstraction including the logical development of formal theories and the relationships between them
- model mathematically a situation from the real world and to transfer mathematical expertise to non-mathematical contexts
- formulate problems mathematically and in symbolic form to facilitate their analysis and solution
- ...

In Business: After completing the course, students will be able to…

- analyse and structure a problem of an enterprise and design a solution (i.e. entering a new market)
- audit an organisation and design consultancy plans (i.e. tax law, investment, case studies, project work)
- define criteria according to which an enterprise is defined, and link the results with the analysis of the environment to identify perspectives (i.e. SWOT, internal and external value chain)
- identify the impact of macro- and microeconomic elements on business organisations (i.e. financial and monetary systems, internal markets)
- ...

In Earth Sciences: After completing the course, students will be able to…

- show a broad knowledge and understanding of the essential features, processes, history and materials of System Earth
- recognise the applications and responsibilities of Earth Science and its role in society
- perceive and understand the spatial and temporal dimensions of geological processes and their effects on the planet
- independently analyse earth materials in the field and laboratory and to describe, analyse, document and report the results
- ...

3 Project Tuning Educational Structures in Europe: http://www.unideusto.org/tuningeu/ Abbreviated as: "Tuning Project".

Examples for Generic Competences (Tuning Project):

- Ability to communicate in a second language
- Ability to be critical and self-critical
- Ability to plan and manage time
- Capacity to generate new ideas (creativity)
- Ability to search for, process and analyse information from a variety of sources
- Ability to identify, pose and resolve problems
- Ability to apply knowledge in practical situations
- Ability to make reasoned decisions

Expected Learning Outcomes

Learning outcomes are the instrument to describe competences

To be able to differentiate and to define subject-specific as well as generic competences, they have to be described. Also, one cannot see competences but only the behaviour a person shows (performance). From a persons' behaviour (e.g. when solving a problem) we derive their competences. The approach of expected learning outcomes helps to "translate" competences into behaviour that can be viewed and assessed.

Expected Learning Outcomes

According to Stephen Adam, "learning outcomes are usually defined in terms of a mixture of knowledge, skills, abilities, attitudes and understanding that an individual will attain as a result of his or her successful engagement in a particular set of higher education experiences" (Adam 2006, 2).

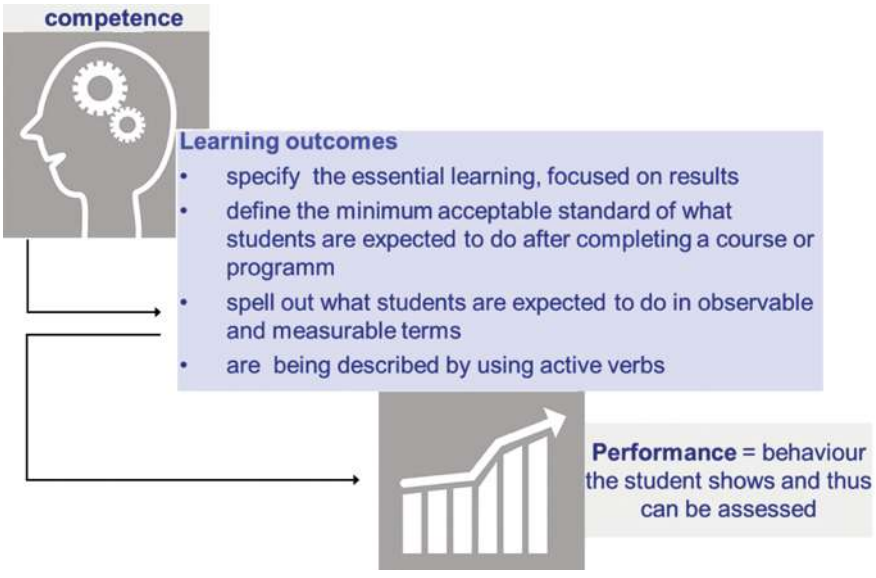

Figure 3 *From competences to expected learning outcome (Ruschin/CHEDQE)*

The theoretical background for the expected learning outcome approach refers to the American psychologist Benjamin Bloom (1913-1999), who carried out research on the development and classification of levels of thinking during learning processes. His approach was transferred into the so called "Bloom's Taxonomy" which is

> *"a classification of thinking behaviours on different levels, starting with the simple recall of facts up to the process of analysing and evaluating issues".*
> ***(Kennedy, Hyland, & Ryan 2006)***

Bloom's classification consists of three learning domains: the cognitive, the affective and the psychomotor domain. Each of these domains is characterised by an ascending order of complexity. (Kennedy et al. 2006)

Bloom's taxonomy for the cognitive learning domain is probably the most known and the one usually used for teaching and learning. In recent years, Lorin Anderson and David Krathwohl (Anderson & Krathwohl, et al 2001; Krathwohl 2002) have revised this taxonomy with regard to the level specification. The revised taxonomy is shown in the following illustration:

Figure 4 *Revised version of Bloom's taxonomy (based on Anderson & Krathwohl, et al 2001; Krathwohl 2002)*

According to the taxonomy, Anderson and Krathwohl distinguish six cognitive levels (Krathwohl 2002). For each cognitive level, we can design learning outcomes. The following table includes some action verbs that facilitate formulating learning outcomes for each cognitive level:

Level	Definition	Action (Active Verb)
Remembering	*Recognising, retrieving or recalling* knowledge from memory.	Arrange, define, describe, duplicate, identify, label, list, match, memorise, name, order, outline, recognise, relate, recall, repeat, reproduce, select, state
Understanding	Determining meaning of instructional communication types, such as oral, written or graphic communication, i.e. by *interpreting, exemplifying, classifying, summarising, inferring, comparing, and explaining*.	Classify, convert, defend, describe, discuss, distinguish, estimate, explain, express, extend, generalised, give example(s), identify, indicate, infer, locate, paraphrase, predict, recognise, rewrite, review, select, summarise, translate
Applying	*Carrying out, executing or implementing* a procedure, i.e. by using models, presentations, interviews or simulations.	Apply, change, choose, compute, demonstrate, discover, dramatise, employ, illustrate, interpret, manipulate, modify, operate, practice, predict, prepare, produce, relate, schedule, show, sketch, solve, use, write
Analysing	Breaking material or concepts into its constituent parts, and determining how the parts relate to one another or to an overall structure or purpose, i.e. by *differentiating, organising, and attributing* issues using spreadsheets, charts, diagrams, graphic representations or others.	Analyse, appraise, breakdown, calculate, categorise, compare, contrast, criticise, diagram, differentiate, discriminate, distinguish, examine, experiment, identify, illustrate, infer, model, outline, point out, question, relate, select, separate, subdivide, test
Evaluating	Making judgements based on criteria and standards by *checking and criticising* issues, documented, for example, in reports or recommendations.	Appraise, assess, compare, conclude, contrast, criticise, critique, defend, determine, grade, judge, justify, measure, rank, rate, support, test
Creating	Putting elements together by generating, planning and producing them to form a coherent or functional whole or make an original product. This process is the most difficult mental function in the taxonomy.	Choose, combine, compose, construct, create, design, develop, do, formulate, hypothesise, invent, make, make up, originate, organise, plan, produce, role play, tell

Table 1 *Action words for cognitive levels (based on Krathwohl 2002) (own table)*

Based on this table, we can match learning outcomes according to the respective qualification level (e.g. bachelor or master) to different cognitive levels of achieving knowledge, skills and competences. Another possibility of defining learning outcomes is to deepen the cognitive levels according to the qualification levels. For

example, students from advanced semesters or with a higher degree work on a deeper level of abstraction on the same issues as first-year students.

The revised taxonomy from Krathwohl is very helpful in defining and formulating learning outcomes on the mentioned different cognitive levels. It facilitates teachers to define expected learning outcomes for their courses, a period of study, or a whole study programme. In doing so, expected learning outcomes specify competences that are credited or awarded. Based on this, students know what they are expected to learn and which competences they will have achieved after completing a course or a study programme.

Additionally, it becomes easier to make qualifications comparable and to support the mobility among students but also employees. Defining learning outcomes helps to achieve more transparency between different qualifications and study programmes and with it can facilitate recognition processes. In doing so, this approach puts much more emphasis on students' preparation for the labour market and their postgraduate life.

A Short Comment:

On European level it was agreed in the "European Standards and Guidelines for Quality Assurance in the European Higher Education Area" (ESG) that…

> *"in fulfilment of their public role, higher education institutions have a responsibility to provide information about the programmes they are offering, the intended learning outcomes of these, the qualifications they award, the teaching, learning and assessment procedures used, and the learning opportunities available to their students.[…]."*
> ***(ESG 2009, 19 guideline 1.7)***

Mode and Area of Application	Features and Attributes
Course (learning outcomes employed at the level of the course as statements that identify what a successful learner will be able to know, understand and/or to do)	■ Concerned with the achievements of the learner ■ Differ from 'aims' that indicate the intentions of the teacher ■ Directly link to a teaching strategy for the effective delivery of the learning outcomes ■ Directly link to an assessment strategy and appropriate assessment criteria ■ Are developed in a context of a wide range of internal and external reference points and influences

Mode and Area of Application	Features and Attributes
Assessment and grading criteria (at the level of the course, learning outcomes can be used to express the criteria that establish the standard of achievement and the relative performance of individuals)	■ Assessment criteria are the description of what the learner is expected to do to demonstrate that the learning outcome has been achieved. ■ Grading criteria refer to the precise quality of the achievement of the outcome. They distinguish the relative performance of each student. Grading criteria are also written as learning outcomes.
Subject specific qualification descriptors (learning outcomes used for describing and expressing subject specific qualifications validated/accredited by a higher education institution, e.g. specific qualification descriptors for engineers)	■ Written individually or collectively by academics and are unique to a specific qualification and institution ■ Include subject specific statements of skills, abilities and understanding ■ Can include general transferable/transversal skills that are sought by employers ■ Will be created within the context of the appropriate national and/or international 'external reference points' and qualification frameworks
National qualification descriptors (learning outcomes as generic descriptions of types of qualifications)	■ Exemplify the generic (non-subject specific) outcomes of a nationally recognised qualification ■ Produced by appropriate national authorities ■ Will include statements of the wider abilities of a typical holder of the qualification (transferable/transversal skills) ■ Linked to national level descriptors. A generic qualifications descriptor can encompass several national level descriptors to show progression or just typify one level ■ Generally describe what has been learned by students by the time they qualify ■ Act as an external reference point, for those at the institutional level, developing individual qualifications

Table 2 *Typology of learning outcomes and their multiple applications (Adam 2006)*

Apart from the above mentioned advantages of using the learning outcome approach, it also comprises several challenges. Many universities still describe a curriculum in the traditional way in terms of what students will cover during their courses, listing the content and mapping the main theories and processes. Hence, there is still need for improvement in using and understanding learning outcomes in a systematic and comprehensive way to express the competences, content, and level of qualification objectives in a study programme. Due to

this, learning outcomes often still fail to inform about the level and the nature of any skills, understanding or abilities that are to be acquired. With imprecise formulations, it becomes difficult to define appropriate criteria to measure to what extent the expected learning outcomes have been achieved or not.

An example for a vaguely defined learning outcome:
"Students have a basic understanding of the problems in a scientific field."

What do we mean with "basic understanding" as an expected learning outcome? What are students actually able to do, if they have a basic understanding? How do we assess "basic understanding"?

To answer these questions, the competence "basic understanding" should be described with some more precise learning outcomes. Doing so, it helps students to understand what they are expected to learn and it helps teachers to think about how and which teaching and learning strategies might help students to achieve the defined expected learning outcomes.

Based on this, a good example for defining learning outcomes is:
After completion of the course, students are able to…
- describe the process of problem solving,
- articulate a problem including assumptions and definitions,
- identify and employ techniques for generating possible solutions,
- identify criteria by which to evaluate possible solutions,
- defend the choice of a solution against alternatives.

This example is also discussed by John Biggs (Biggs 1996, 5 et seq.).

Another problem that often arises when applying the learning outcome approach is that a curriculum is overloaded with expected learning outcomes. A student is not able to learn all content matters that are linked to these learning outcomes in a limited period of time. Hence, it is necessary to balance expected learning outcomes with the workload students are able to invest for a course.

A quality manager should have these challenges in mind. Up to now, very often teacher-centred-learning is what most lecturers and students are used to and familiar with. Student-centred-learning can supplement this approach and if possible even be a substitute. But this takes time, effort and change of attitude in teachers and students alike.

The following criteria can be helpful in describing expected learning outcomes:

How to Describe Expected Learning Outcomes (Kennedy et al. 2006, 18):

- Describe the expected learning outcomes using action verbs of what students are expected to do.
- Use only one verb per expected learning outcome.
- Write down only the essential expected learning outcomes.
- The expected learning outcomes must be observable and measureable.

- Avoid complicated sentences.
- Ensure that the expected learning outcomes of the course/module relate to the overall expected learning outcomes of the study programme.
- Being able to apply learning outcomes in a comprehensive way requires willingness to reflect. Sometimes it also demands some further staff-development. All this takes time and affords financial and human resources.

Questions & Assignments

1. Please formulate 1-2 expected learning outcome(s) to describe the competence "scientific writing" for each of the levels of Bloom's revised taxonomy. What is a student expected to know, understand and/or be able to demonstrate in the field of scientific writing?

   Tool kit: The verbs mentioned in the table above may help you to define learning outcomes at the different taxonomy levels.

2. To what extent do you discuss the concept of learning outcomes at your HEI? Which challenges and obstacles do you have to overcome? Which opportunities and advantages do you recognise when applying the concept of learning outcomes?

Further Reading

- Biggs, J. & Tang, C. (2007). *Teaching for quality learning at universities: What the student does* (3rd Edition). Berkshire: Open University Press.
- Biggs, J. (1996). Enhancing teaching through constructive alignment. *Higher Education*, *32*(3), 347-364.
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- UNESCO (2014). *Teaching, learning & assessment*. Retrieved on January 20, 2015, from http://www.unideusto.org/tuningeu/documents/teaching-learning-a-assessment.html
- The website of the Project Tuning Educational Structures in Europe (Tuning Project) presents a wide range of publications and information, e.g. on:
  - Competences
  - Workload & ECTS
  - Teaching, learning & assessment
  - Quality enhancement
- Tuning Project. (2014). *Educational structures in europe*. Retrieved on January 20, 2015, from http://www.unideusto.org/tuningeu

2.2 Conceptualisation of Study Programmes

We have already learned that objectives and learning outcomes can be defined on different levels of a study programme – be it at programme level as a whole or for a specific course as such. Hence, a systematic conceptualisation and development of a study programme and its curriculum implies that the objectives of a study programme and the learning outcomes on course level are coherently connected. In addition, the programme has to be embedded and linked to the strategic planning of the higher education institution and existing internal and external objectives and requirements.

An Example: Linking Programme Objectives to Faculty and Institutional Objectives

The mission statement of a university includes the aim to strengthen internationalisation. Due to this, all faculties shall strengthen internationalisation in the field of teaching and learning as well. They have defined the following objectives to be achieved:

- To promote international collaboration
- To design international study programmes
- To raise the number of international students by 10%
- To increase the number of students going abroad
- To invite lecturers from abroad

Based on this, the faculties revise the qualification objectives of some study programmes, including the competence to work in an international context and in intercultural working teams. Therefore, the member of staff in charge defines the following objectives for the study programme:

Students who successfully finish the programme have…
- completed 50% of the subject-specific courses in a foreign language,
- studied a semester abroad,
- carried out an internship in an international operating company.

Different objectives from internal and external stakeholder groups, institutional reform processes, political/juridical regulations, comparability, standardisation, compatibility with other higher education institutions – all these are factors that are influencing programme development and with it the definition of qualification objectives and competences.

Therefore, the process to set up study programmes successfully starts with considering these multiple objectives, weighing up the resulting consequences with regard to the design of the respective curricula.

Conceptualising a study programme

Concerning the strategic conceptualisation of study programmes means clarifying especially the following questions:

- Why should we set up a specific study programme? Why does a specific study programme exist? (internal/external objectives)
- Which target group is this study programme meant for and why?
- Which financial and human resources are available and how can they be used for the curriculum design?
- What are the particularities of the study programme and in how far does it differ from programmes of other higher education institutions? How do we communicate this inside and outside of our institution?

Comparability and diversification

Defining the particularities of a study programme is important with regard to differentiation but also comparability in the national and international context. It helps to support exchange and mobility among students and researchers and to strengthen and stabilise national and international compatibility of higher education institutions.

To be able to reach this aim, it is necessary that study programmes show comparable and approved qualification profiles. Based on the bachelor/master degree system, higher education institutions have started to standardise their study programmes and with it to make them comparable. Some instruments to do so are the following:

- Qualification frameworks that are approved among higher education institutions (e.g. Qualification Framework of the European Higher Education Area (QF-EHEA, planned qualification framework in East Africa (IUCEA))
- Tables for credit transfer that help to compare different grading systems (e.g. European Credit Transfer System (ECTS)) (European Communities 2009)
- Standardised templates for course descriptions (including e.g. learning outcomes and assessment methods, transcripts of records or diploma supplements). (European Commission, the Council of Europe and the UNESCO/CEPES)

Further Reading

- More Information about the qualification framework of the European Higher Education Area can be found on the following website: Bologna Secretariat. (2010). *Qualifications framework EHEA.* Retrieved on January 22, 2015, from http://www.ond.vlaanderen.be/hogeronderwijs/bologna/qf/qf.asp
- More information about the current state of the qualification framework in East Africa is offered on the website of the IUCEA: IUCEA. (2013a). *The Inter-University Council for East Africa*. Retrieved on January 22, 2015, from http://www.iucea.org/index.php?option=com_content&view=featured&Itemid=435

- The Bologna Working Group has developed a user's guide for the European Credit Transfer System (ECTS). ECTS key features are explained and also templates on how to design templates for transcript of records, learning agreements or diploma supplements are offered: European Communities. (2009). *ECTS users' guide*. Luxembourg: Office for Official Publications of the European Communities. Retrieved on January 20, 2015, from http://ec.europa.eu/education/tools/docs/ects-guide_en.pdf
- The European Commission offers a standardised template to design a diploma supplement. "The purpose of the supplement is to provide sufficient independent data to improve the international 'transparency' and fair academic and professional recognition of qualifications (diplomas, degrees, certificates etc.). It is designed to provide a description of the nature, level, context, content and status of the studies that were pursued and successfully completed by the individual named on the original qualification to which this supplement is appended.": European Commission, the Council of Europe and the UNESCO/CEPES. *The Diploma Supplement*. Retrieved on January 20, 2015, from http://www.europass.fi/download/147031_Online_the_diploma_supplement.pdf

The Qualifications Framework of the European Higher Education Area (QF-EHEA) – An Example

Qualifications frameworks play an important role in developing degree systems, developing study programmes as well as facilitating recognition of qualifications at higher education institutions.

> *"A qualifications framework encompasses all the qualifications in a higher education system … It shows what a learner knows, understands and is able to do on the basis of a given qualification – that is, it shows the expected learning outcomes for a given qualification."*
> ***(Bologna Secretariat 2010)***

The EHEA-QF was declared at the Ministerial Conference in Bergen 2005. It focuses on higher education and covers the three cycles of Bachelor, Master and Doctorate. It is based on the so-called "Dublin Descriptors" which are generic descriptors based on learning outcomes. They refer to three cycles and include:

- knowledge and understanding,
- application of knowledge and understanding,
- making judgements,
- communication and learning skills.

Based on this overarching framework, the member countries of the EHEA develop national qualifications frameworks that are compatible with it.

Study Cycle	Outcomes
First cycle (BA: typically include 180-240 ECTS Credits)	Qualifications that signify completion of the first cycle are awarded to students who: ■ have demonstrated **knowledge and understanding** in a field of study that builds upon their general secondary education, and is typically at a level that, whilst supported by advanced textbooks, includes some aspects that will be informed by knowledge of the forefront of their field of study, ■ can **apply** their knowledge and understanding in a manner that indicates a professional approach to their work or vocation, and have competences typically demonstrated through devising and sustaining arguments and solving problems within their field of study, ■ have the **ability to gather and interpret** relevant data (usually within their field of study) to **inform judgements** that include **reflection** on relevant social, scientific or ethical issues, ■ can **communicate** information, ideas, problems and solutions to both specialist and non-specialist audiences, ■ have **developed those learning skills** that are necessary for them to continue to undertake further study with a high degree of autonomy.
Second cycle (Master: typically includes 90-120 ECTS credits, with a minimum of 60 credits at the level of the 2nd cycle)	Qualifications that signify completion of the second cycle are awarded to students who: ■ have demonstrated **knowledge and understanding** that is founded upon and extends and/or enhances that typically associated with the first cycle, and that provides a basis or opportunity for originality in developing and/or applying ideas, often within a research context, ■ can **apply** their knowledge and understanding, and problem solving abilities in new or unfamiliar environments within broader (or multidisciplinary) contexts related to their field of study, ■ have the ability to **integrate knowledge and handle complexity, and formulate judgements with incomplete or limited information**, but that include **reflecting** on social and ethical responsibilities linked to the **application of their knowledge and judgements**, ■ can **communicate** their conclusions, and the knowledge and rationale underpinning these, to specialist and non-specialist audiences **clearly and unambiguously**, ■ have the **learning skills** to allow them to continue to study in a manner that may be largely self-directed or autonomous.

Study Cycle	Outcomes
Third Cycle (PhD; ECTS not specified)	Qualifications that signify completion of the third cycle are awarded to students who: ■ have demonstrated a **systematic understanding** of a field of study and mastery of the skills and methods of research associated with that field, ■ have demonstrated the **ability to conceive, design, implement and adapt** a substantial process of research with scholarly integrity, ■ have made a **contribution through original research** that extends the frontier of knowledge by developing a substantial body of work, some of which merits national or international refereed publication, ■ are **capable of critical analysis, evaluation and synthesis of new and complex ideas**, ■ can **communicate** with their peers, the larger scholarly community and with society in general about **their areas of expertise**, ■ can be expected to be able to **promote**, within academic and professional contexts, **technological, social or cultural advancement** in a knowledge based society.

Table 3 *European Higher Education Area – Qualifications Framework (Bologna Secretariat 2010)*

Info Box: The Tuning Project

Tuning has developed reference points for common curricula on the basis of agreed competences and learning outcomes as well as cycle level descriptors for many subject areas. This should enhance recognition and European integration of diplomas, taking into consideration the diversity of cultures.

Its goal is to establish higher education in cycle systems (BA/MA/PhD) in order to generate comparable learning outcomes and competences for each cycle. Therefore, higher education programmes are being evaluated and (re-) designed or newly developed and implemented to enhance quality in first, second and third cycle degree programmes.

Find more information about the Tuning Project in general on the following website: http://www.unideusto.org/tuningeu/ **It includes a special focus on Africa within the "African Higher Education Harmonization and Tuning Project"**: http://www.tuningafrica.org/

Wrap up: Conceptualisation of study programmes

The following questions are helpful for a systematic conceptualisation of study programmes.

Questions
Are there defined programme objectives at your institution/in your country? Are they described in terms of ELOs already?
Which qualification level shall be achieved (BA/MA)?
What is the target group?
Which subject-specific competences and which general competences shall be covered?
How far does the programme fit to other programmes offered by the faculty?
To what extent does the programme correspond to the strategic plan and to the vision/mission of your institution?
Which labour market fields shall be addressed?
Which research areas shall be covered by the programme?

Questions & Assignments

1. Please select a study programme of your higher education institution. To what extent does it fit to the strategic planning of the faculty and the higher education institution? Do the study programme descriptions include any defined objectives and competences? If not, include them. If yes, please check, if it becomes clear to you, what competences students should have acquired after graduation.

2.3 Curriculum Development: Defining Learning Outcomes on Course Level

Based on the qualification objectives on programme level we continue to define expected learning outcomes on course level. Doing so, not every learning outcome on course level has to be reflected on programme level. Nevertheless, as we have already learned, there should be a thread that connects and aligns the courses and with it the respective learning outcomes to a complete curriculum.

Based on this, expected learning outcomes on course level should be observable and measurable. Meanwhile, qualification objectives on programme level do not have to do so. They are formulated in a more comprehensive and general way. Learning outcomes on course level become more detailed and specific with regard to the expected competences. They describe the expected knowledge, skills and competences to be achieved in a course. In the respective course descriptions, the expected learning outcomes are to be defined. In doing so, course description shall give a reliable and transparent information overview about the content, qualitative and quantitative requirements and how the course is integrated into the programme concept.

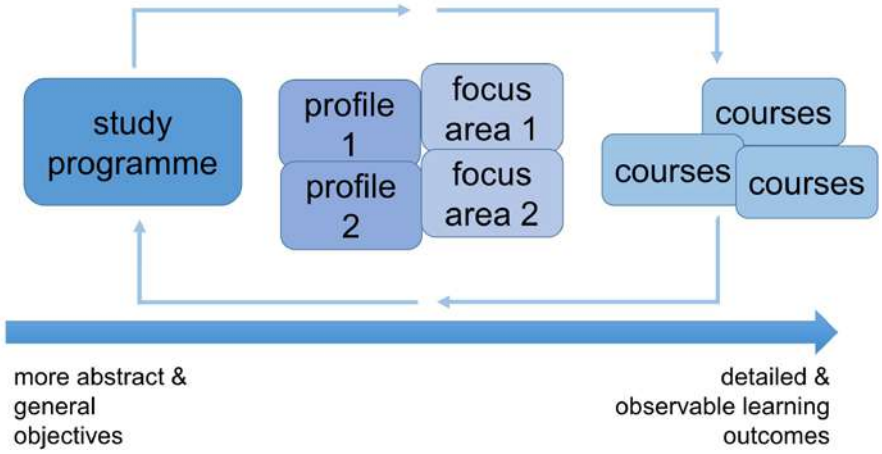

Figure 5 *Objectives on programme level and learning outcomes on course level (Ruschin/CHEDQE)*

The big challenge when formulating learning outcomes on course level is to find a formulation that is understandable and that makes clear what students shall learn and be able to do after completion.

To continue with the above-mentioned example of the study programme that has a special focus on internationalisation, we can now define learning outcomes on course level that have to be achieved to be able to work in an international, and with it intercultural, context (as mentioned above).

Possible learning outcomes students have achieved after successful completion of a course, can be to…

- summarise Anglophone articles and literature and extract central issues,
- employ subject-specific terminologies in English,
- present their point of view on relevant issues in English,
- identify and reflect on intercultural differences.

Writing Learning Outcomes on Course Level: Unclear and Clear Examples

Please select a study programme of your higher education institution. To what extent does it fit to the strategic planning of the faculty and the higher education institution? Do the study programme descriptions include any defined objectives and competences? If not, include them. If yes, please check, if it becomes clear to you, what competences students should have acquired after graduation.

- **Unclear:** The course will introduce you to major periods in the history of western music.
- **Clear:** You will be able to identify and summarise the important features of major periods in the history of western music.

- **Unclear:** You will understand important concepts and principles.
- **Clear:** You will be able to apply important concepts and principles of psychology to draw conclusions about populations from samples.
- **Clear:** You will be able to describe the operations of financial institutions and the services they provide.

- **Unclear:** You will write a term paper on a topic that interests you.
- **Clear:** You will be able to demonstrate your knowledge about the significance of current research in the field by writing a research report.
- **Clear:** You will be able to prepare and present effective, informative, and persuasive public speeches.

Source: Website of the University of Rhode Island on "Developing & Writing Course-Level Student Learning Outcomes": The University of Rhode Island. (2015). *Developing & writing course-level-student learning outcomes*. Retrieved on January 20, 2015, from http://web.uri.edu/assessment/course-level-outcomes/

Another Example for Defining Learning Outcomes on Course Level is the Following (extracted from Kennedy 2007, 81):

Course Unit: "Team Software Project"

The students will be able to ...

- define a Project Management Plan,
- contrast alternative implementation procedures,
- discuss contingency plans,
- schedule tasks to achieve goals,
- assess project outcomes with respect to initial stated requirements.

Questions & Assignments

1. Please revise one of your course descriptions and describe your course in terms of learning outcomes: After completing the course, the students will be able to …

2. Please check on which levels of the revised Bloom's taxonomy these learning outcomes are placed. Do the expected learning outcomes describe what students are expected to do after completion of the course? If possible, please discuss with a colleague.

Further Reading

- Additional examples for writing learning outcomes on course and on programme level: The University of Rhode Island. (2015). *Developing & writing course-level-student learning outcomes.* Retrieved on January 20, 2015, from http://web.uri.edu/assessment/course-level-outcomes/
- Meijers, A., van Overveld, C., & Perrenet, J. (2005). *Criteria voor academische bachelor and master curricula.* Delft: TU Delft.
- The Quality Assurance Agency for Higher Education. (2006). G*uidelines for preparing programme specifications.* Mansfield. Retrieved on January 20, 2015, from http://www.industriales.upct.es/pdfs/guidelines06.pdf

2.4 Organisation of Study Programme Development

To be able to manage the aforementioned content-related and methodological targets of programme development some organisational processes need to be considered as well. These are a fundamental prerequisite for a course to take place, for students to be able to register for exams or to receive a certificate after completing their studies.

Higher education institutions have established diverse service and administration processes to be able to deal with these organisational targets. Three key questions have to be clarified among the involved stakeholders to make these organisational processes work:

- Who? – Definition of responsibilities
- Does what? – Definition of targets and functions
- When? – Definition of dates and deadlines

Quality managers can play a connecting role with regard to these processes. For example, they can take care that the respective necessary information and workflows between the involved stakeholders are transparent and clear to everybody.

The organisational targets for study programme development may differ from one country to another, depending on political and jurisdictional conditions for higher education. For example, there are countries such as Nigeria and the Philippines, where curricula are defined for all higher education institutions on national level. In other countries, higher education institutions develop curricula on their own and they have to be approved by the ministry and/or an accreditation agency. In Ghana, for example, it is the National Accreditation Board (NAB) that approves curricula based on accreditation of the study programme.

Based on this, the role and function of quality managers may differ as well. The following table gives an overview on key steps to be considered during the conceptualisation and development of study programmes. The descriptions refer to key activities and questions which should be considered during each procedural step. The necessity and relevance of these (or perhaps even other) process steps can vary, depending on the respective political/juridical context (see above). That is why this table is not exclusive or conclusive, but should be adapted to the specific needs of a higher education institution.

	Process Step	Set Up of Workflows/Coordination Flows/Information Flows

1	Development and approval of a study programme concept (concerning new set up of programmes)	■ Initiative for a first survey of demand to set up a study programme
		  ■ Who is responsible to mandate a first survey of demand? (ministry? top management of higher education institution? faculty?)
		■ Realisation of a first survey of demand
		  ■ Which demands can be observed to set up a new study programme?
		  ■ Who is in charge of the survey on demand and which parties are to be involved?
		  ■ Which information outcomes should be achieved based on the survey?
		  ■ How is this information to be documented? (e.g. necessity to set up a template?)
		■ Set up of a study programme concept
		  ■ Which key information is necessary to decide about a study programme set up? (e.g. qualification objectives, staff capacities, financial recourses etc.)
		  ■ How should the programme concept be documented? (e.g. standardised template)
		■ Approval of the study programme set up
		  ■ Who is to be considered in the approval process of the study programme concept?
		  ■ Who decides on the set up and revision of a study programme? (ministry? top management of higher education institution? faculty?)

2	Administrative preparation to set up a study programme	Internal and external coordination ■ Which internal parties of a higher education institution have to be considered in the set up process/revision of a study programme? (e.g. top management, faculties, department for academics, IT and legal department) ■ Which external parties outside the higher education institution have to be considered in the set up process/revision of a study programme? (e.g. ministry, national regulatory bodies, accreditation agencies) ■ Which administrative questions have to be clarified? (e.g. time frame for enrolment; admission restrictions; (electronic) online-based requirements)
3	Accreditation process	Realisation of the accreditation according to the respective defined procedures on-site.

	Process Step	Set Up of Workflows/Coordination Flows/Information Flows
4	Further design of the study programme concept	■ Clarification of further conditions and requirements for the set up/revision of a study programme at the faculty, e.g.: ■ To what extent is the study programme embedded in the strategic planning of the faculty? ■ Which financial, human and material resources are available? To what extent are additional resources needed? ■ Are additional agreements with collaborating partners of the study programme necessary? If so, who is to be considered to do so? ■ Development of a curriculum for the study programme (e.g. at a faculty): defining qualification objectives, competences and learning outcomes; developing a course scheme including a timeframe; labelling of the courses and the programme as such; defining responsibilities etc. ■ Who is to be involved with regard to curriculum development and how? (coordination of workflows among the involved parties, e.g. ministry, top management, faculty) ■ Which requirements have to be considered with regard to curriculum development? (e.g. jurisdictional requirements, interdisciplinary agreements, duplication with programmes of other faculties/higher education institutions) ■ Design of an examination regulation ■ Who is to be involved with regard to designing the examination regulation and how? Coordination of workflows (e.g. among ministry, department for academics, legal department, quality manager) ■ Do particular admission prerequisites require an admission regulation? ■ Design of course descriptions ■ Who is to be involved with regard to designing course descriptions (e.g. lecturers themselves, programme managers, administration, quality managers)? ■ Which information has to be considered in the course descriptions? Is there a standardised template to be used? ■ Design of certification documents ■ Who is responsible for the design of certification documents? ■ Which documents are to be included for the certification (e.g. transcript of records, certificate, diploma supplement) ■ Which information should be included in the certification documents? Who decides about this information? ■ Management of assessment ■ Which workflows have to be considered in managing assessments? (e.g. registration process; timeframe; room reservation; documentation of performances/grades; documentation of sick notes) ■ Who is to be involved in these workflows?

	Process Step	Set Up of Workflows/Coordination Flows/Information Flows
5	Approval of examination regulation	■ Who approves the examination regulation? (e.g. ministry, top management, faculties, commission for teaching and learning) ■ What is the order of the approving parties to be considered? ■ Which prerequisites have to be fulfilled for approval? (e.g. legal/formal review of the regulation) ■ Who is in charge of coordinating the fulfilment of these prerequisites and the approval process? Which parties have to be considered in this process (e.g. quality manager, dean, commission of teaching and learning, administration, ministry) ■ Who is responsible for publishing the examination regulation and who is to be informed?
6	Initiation of the study programme	■ Which planning and coordination processes have to be considered when initiating a study programme/implementing changes to an existing study programme? (e.g. enrolment; course planning; student mentoring) ■ Who is to be involved in these processes? ■ How should the necessary information processes about the new programme/ the changes of a programme (e.g. programme brochure, leaflets, website) be organised? Who is to be informed by whom?

Table 4 *Process steps and setup of workflows*

Questions & Assignments

1. *Design of course descriptions:*
   Course descriptions inform students about learning outcomes, content, assessment requirements, timeframe, number of credits etc. Does your higher education institution design such course descriptions? If so:
   - Who is in charge designing the course descriptions?
   - Who informs the students about the existing course descriptions and how?
   - Do you think that the information in a course description as mentioned above refers to the students' needs? Do you have any additional information in mind that should be considered as well?

2. *Design of a transcript of records and recognition procedures:*
   - Who is responsible for designing and issuing a transcript of records?
   - Which information is included in the transcript of records?
   - Which challenges do you have to deal with in regard to the recognition of credits from other higher education institutions, (both from abroad or nationals)? How do you try to deal with them?

3. *Design of an examination regulation:*
   - Please describe the regulative basis for study programmes at your higher education institution. (For example, do you have a fixed regulation for all study programmes or does each programme have its own regulation?)
   - Please describe a case at your institution due to which a formal change in the regulation document was necessary, (e.g. recognition of credits; issue of certificate; assessment management). How did you proceed? Which challenges did you have to deal with?

Chapter 3

Constructive Alignment

3 Constructive Alignment **53**

3.1 What Does Constructive Alignment Mean? **53**

3.2 Linking Assessment and Learning Outcomes **55**

3.3 Linking Teaching and Learning Strategies and Learning Outcomes **63**

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

- apply the constructive alignment approach for designing curricula,
- define appropriate assessment techniques matching the learning outcomes,
- develop appropriate teaching and learning strategies to achieve the defined learning outcomes of a course.

3 Constructive Alignment

3.1 What Does Constructive Alignment Mean?

A student-centred approach to teaching and learning requires lecturers and students to do more than recounting information. Instead, students are to be enabled to actively apply their knowledge, to think critically and to make and argue educated judgements and decisions. This consequently requires suitable learning-arrangements that go beyond lecturing.

Applying the student-centred-approach includes looking at a curriculum from students' perspectives. What does that mean? Considering the traditional teachers' perspective, lecturers aim at transferring their knowledge to students. To do so, they define certain teaching activities and assessment techniques. Students' perspectives are often the way around: it is not the teachers' objectives but the assessment that defines the curriculum (Ramsden 2003).

> *"Students will learn what they think will be assessed, not what may be on the curriculum or even what has been covered in lectures."*
> ***(Kennedy et al. 2006, 20)***

Therefore, learning outcomes, teaching and learning strategies, as well as assessment methods have to be linked to each other.

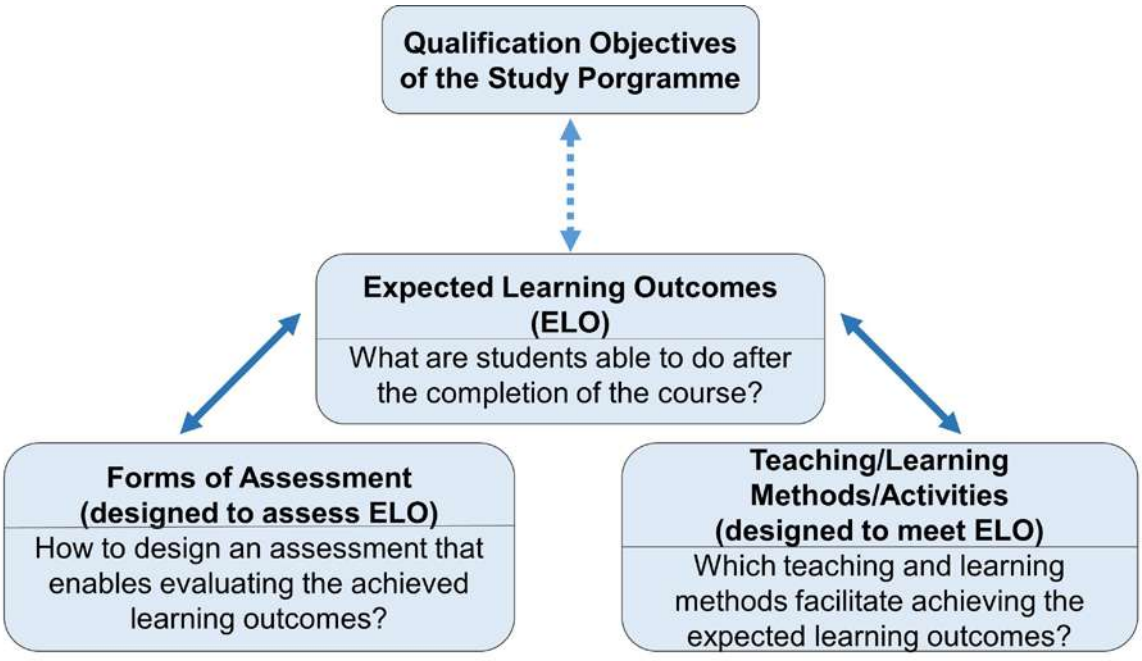

Figure 6 *Qualification objectives of the study programme - constructive alignment (CHEDQE)*

What does constructive alignment mean?

John Biggs defined the coordination of these three aspects – expected learning outcomes, teaching and learning and assessment – as **"Constructive Alignment"** (Biggs 2003). The word constructive refers to the way of learning and what the learner does. The word alignment refers to what the teacher does. Hence, the basic idea of constructive alignment is to coordinate teaching and learning activities and assessment methods in such a way that they support student learning to achieve the expected learning outcomes.

What does that mean for the lecturers' activities? We can summarise three basic tasks for constructive alignment of a course (Kennedy et al. 2006, 22):

1. Clearly define learning outcomes.
2. Choose assessment methods that are able to assess the expected learning outcomes.
3. Select teaching and learning strategies that are likely to prepare for the assessment and with it to ensure that the learning outcomes are achieved.

What can quality managers do in this context?

Assuming that it is the lecturers who are responsible for teaching and learning because they know best, quality managers can still play a supporting role for them.

For example, quality managers can…

- ensure information flows concerning certain internal or external standards/requirements are considered in assessment procedures or when grading students' performance,
- make sure that lecturers make their grading schemes transparent to the students,
- ask good questions and find out about inconsistencies between different grading schemes at a faculty or between faculties and help to close these gaps,
- support lecturers with linking assessment methods and teaching and learning strategies appropriately to achieve the expected learning outcomes (e.g. providing a table matrix, in which lecturers have to write down the expected learning outcomes and appropriate assessment techniques and teaching/learning strategies; offering information about possible assessment formats and teaching and learning strategies).

To be able to do so, quality managers need a basic understanding and knowledge of assessment techniques, how to grade students' performance and the multiple possibilities of teaching and learning strategies that can be used to facilitate students' learning.

In Chapter 2 we learned how to define learning outcomes. In the following we will focus on the development of appropriate assessment methods to evaluate expected learning outcomes (Chapter 3.2) and we will align them to adequate teaching and learning strategies that facilitate achieving the expected learning outcomes (Chapter 3.3).

Further Reading

- Anderson, L. W., & Krathwohl, D.R., et al. (2001). *A taxonomy for learning, teaching, and assessing: A revision of Bloom's taxonomy of educational objectives.* Boston, MA (Pearson Education Group): Allyn & Bacon.
- Biggs, J. & Tang, C. (2007). *Teaching for quality learning at universities: What the student does* (3rd Edition). Berkshire: Open University Press.
- Biggs, J. (2003). *Aligning teaching and assessment to curriculum objectives*. LTSN Generic Centre.
- Educational film that explains the theory of constructive alignment
  - Brabrand, C. & Andersen, J. (Author) (2006, October 13). *Teaching teaching & understanding understanding* [Television broadcast]

3.2 Linking Assessment and Learning Outcomes

Assessment plays an important role in (higher) education processes: It fulfils a controlling function for the learning process because passing an exam or receiving feedback includes a high involvement of learning activities. The shift to a competence-based programme design also includes a shift to competence-based assessment. That means not only to assess knowledge but also judge and evaluate the competences students have achieved.

Traditional Approach	Competence-based Approach
Key question: Which qualifications have students achieved after completion of the course?	*Key question:* What should students be able to do? And which competences (subject-specific, social, communicative etc.) do they need?
Assessment content refers to the content of the course.	Assessment content is defined by the competences to be achieved in the course.
Teacher-centred perspective: Key element of the assessment is the reproduction of knowledge the teacher has taught during the course.	*Student-centred perspective:* The assessment format has to enable the students to show if they have achieved the defined competences of the course.

Table 5 *Traditional vs. competence-based approach*

Example: Linking learning outcomes and assessment

If the expected learning outcomes the teacher has defined when designing a course are not repeated in the assessment, there will most probably be a gap between the teachers' expected learning outcomes and the students' learning outcomes that is directed at the assessment, as illustrated in the following example:

In a course on project management one expected learning outcome is that the students shall be able to plan, implement and analyse projects autonomously. Now, if an assessment is directed at recounting theories and methods of project management only, the students will direct their learning to that task. The above defined learning outcome will not be achieved. In order to achieve the expected learning outcome, the assessment should test whether the students are able to apply their knowledge of theories and methods. This will be done best for example by

1. analysing cases or
2. remodelling faulty project management plans or
3. recording the process of planning and effectuating a project.

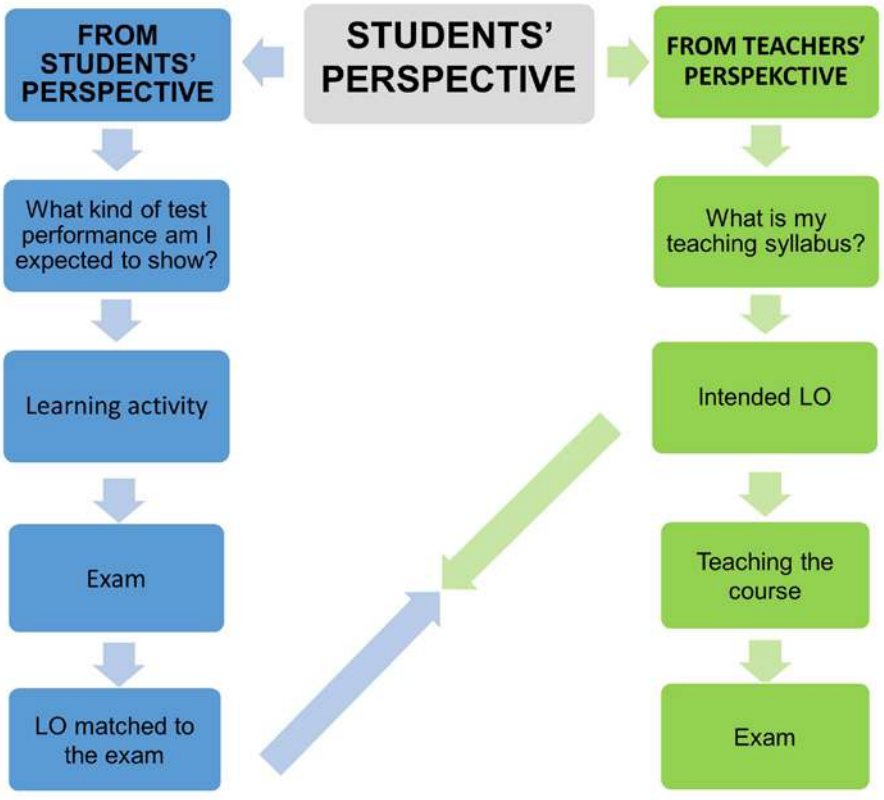

Figure 7 *Perspective on students' learning process (CHEDQE)*

Talking about assessment techniques, we can differentiate two groups: formative and summative assessment.

Formative assessment monitors students' learning processes and progress, providing feedback on strengths and weaknesses of teaching and learning activities. Therefore, it involves the response by the teacher to the needs of the students. Considering such feedback procedures, helps to modify and improve teaching and learning activities. Therefore, it should be carried out at the beginning or during a course (Kennedy 2006, Black/Williams 1998).

"Formative assessment is part of the teaching process rather than the grading process." (Kennedy et al. 2006, 21)

Typical formative assessment techniques are for example a one-minute-paper[4], classroom opinion polls or student-generated test questions[5] (for further examples see Brown 2001).

Formative Assessment

- Purpose: monitor student learning
- Throughout class, on-going
- Qualitative
- Helps students identify their strengths and weaknesses and target areas that need work
- Help faculty recognise where students are struggling and address problems immediately
- Usually not graded

Summative assessment summarises students' learning, usually at the end of an instructional period, and describes what students have achieved during this period. Such description facilitates grading that reflects the students' performance in comparison to certain standards or benchmarks. Thinking about summative assessment techniques, we might quickly think in typical forms such as a written exam (by questions or essays) or an oral exam (by oral questions or demonstration of practical skills) (Kennedy et al. 2006, 21; Brown/Knight 2012).

"Summative assessment enables a grade to be generated that reflects the student's performance." (Kennedy et al. 2006, 21)

However, apart from these, there are many more possibilities to assess learning outcomes. The following table gives an overview of various forms of assessment and which competences can be evaluated with them. The list is not exclusive but is open to be completed.

4 In a one-minute-paper, students summarise the most important information or prepare a short statement.
5 Students generating exam questions can be used to review course material. It gives teachers an indication of what students have learned and what not.

Form of Assessment	Competences to be Assessed
Theses Defence of a theses	■ Develop, analyse and judge research questions ■ Find and consider linkages to other themes ■ Apply theoretical knowledge ■ Structure the theses ■ Develop and apply effective working methods to finish the theses ■ Work under time constraints to meet deadlines ■ + competences mentioned for written essays/reports
Written essays or reports, e.g. ■ Review of articles ■ Critique of contrasting research paper ■ Analyses of text, data, cases ■ (E)portfolio, diary ■ Field work report ■ Work placement report ■ Project report	■ Analyse and reflect theoretical knowledge ■ Differentiate theoretical approaches ■ Criticise ones' own work ■ Use scientific methods ■ Pose problems as well as solve those set by the lecturer ■ Conduct increasingly complex even if small scale, research ■ Summarise those readings, which seem to be most relevant to their current needs ■ Survey literature ■ Conduct searches for relevant materials in libraries and online ■ Deal with new media ■ Reflect activities/professional skills during a work placement/project/field work ■ Analyse and reflect technical or laboratory skills ■ Reflect and comment on how to transfer theory into practice (e.g. during work placement, project, field work ■ Work under time constraints to meet deadlines
Oral discussion Interview	■ Communicate interactively with different stakeholders ■ Present orally information on analyses, data, results etc. ■ Summarise theoretical knowledge orally ■ Reflect critically and discuss research questions ■ Comment critically on other statements/arguments ■ Formulate problems as well as answer those set by the lecturer
(Poster) presentation	■ Summarise key aspects of a given issue and make them understandable to others ■ Creative illustration of a given issue/question/problem ■ Creative operating in a group (if group work) ■ Lead / chair group activities (if group work) ■ Work with other students to co-produce an answer to a problem/discover a research problem ■ Work under time constraints to meet deadlines

Form of Assessment	Competences to be Assessed
Logbook	■ Summarise key aspects and results of a given task (e.g. laboratory unit)
Written exam	■ Repeat, summarise, analyse, reflect understand theoretical knowledge
Multiple Choice	■ Understand theoretical knowledge

Table 6 *Forms of assessment and competences to be assessed (University of the Sciences 2014).*

How to grade students' performance

Having decided which assessment technique is appropriate to measure if students have achieved the expected learning outcomes or not, lecturers have to define grading criteria that help to evaluate the students' performance level.

Grading criteria set a framework to be able to differentiate upon which performance level is regarded as best, good, satisfactory or failed. They should be defined according to fair, objective and justifiable principles and they should be made transparent to the students at the beginning of the lecture. Based on this, students are able to design their learning activities appropriately to be prepared for the test.

Grading criteria set a framework to differentiate performance levels

Concerning the question of how to grade students' performance, a lecturer needs to define grading criteria that indicate the performance level of the students.

Grading Criteria

"are statements that indicate what a student must demonstrate to achieve a higher grade" (Kennedy et al. 2006, 23).

Based on these criteria, a grade can indicate an overall level of competence. However, this does not yet include a qualitative feedback on strengths and weaknesses of students' performance concerning specific learning outcomes.

That is why a grading system should be combined with a scoring guide that can show some areas of improvement. Such scoring guide is called a rubric.

Rubric

A rubric "is a grading tool used to describe the criteria used in grading the performance of students" (Kennedy et al. 2006, 24).

Rubrics are measurable performance criteria

Assessment rubrics describe scoring schemes that help to evaluate and make judgements on the quality of a given student performance with regard to the expected learning outcomes. Rubrics provide descriptions to each level as to what is expected. That means they describe the extent to which the specified criteria have been reached. In doing so, they allow the students to understand why they received one particular score/grade. Furthermore, rubrics enable feedback to be given on what students need to do to improve their future performance (Moscal 2000; Mueller 2009). Depending on the assessment purpose, we can differentiate between analytic and holistic rubrics.

Analytic rubrics

You use an analytic rubric if you want to distinguish important dimensions of student performance related to the performance criteria. The dimensions are presented in separated categories and rated individually.

Work Effectively in Teams				
Scale → / ↓ Dimensions	Unsatisfactory (1)	Developing (2)	Satisfactory (3)	Exemplary (4)
Research & gather information	Does not collect any information that relates to the topic.	Collects very little information – some relates to the topic.	Collects some basic information – most relates to the topic.	Collects a great deal of information – all relates to the topic.
Fulfil team roles' duties	Does not perform any duties of assigned team role.	Performs few duties.	Performs nearly all duties.	Performs all duties of assigned team role.
Share in work of team	Always relies on others to do the work.	Rarely does the assigned work – often needs reminding.	Usually does the assigned work – rarely needs reminding.	Always does the assigned work without having to be reminded.
Listen to other team-mates	Is always talking – never allows anyone else to speak.	Usually does most of the talking – rarely allows others to speak.	Listens, but sometimes talks too much.	Listens and speaks a fair amount.

Table 7 Analytic rubric (Rogers 2010)

Holistic rubrics

If you want to get a more global picture of the students' performance on a certain task you use a holistic rubric. In this case, performance is assessed through multiple criteria which are matched to the best fit as a whole.

Work Effectively in Teams			
Unsatisfactory (1)	**Developing (2)**	**Satisfactory (3)**	**Exemplary (4)**
■ Does not collect any information that relates to the topic. ■ Does not perform any duties of assigned team role. ■ Always relies on others to do the work. ■ Is always talking – never allows anyone else to speak.	■ Collects very little information – some relates to the topic. ■ Performs few duties. ■ Rarely does the assigned work – often needs reminding. ■ Usually does most of the talking – rarely allows others to speak.	■ Collects some basic information – most relates to the topic. ■ Performs nearly all duties. ■ Usually does the assigned work – rarely needs reminding. ■ Listens, but sometimes talks too much.	■ Collects a great deal of information – all relates to the topic. ■ Performs all duties of assigned team role. ■ Always does the assigned work without having to be reminded. ■ Listens and encourages others to participate.

Table 8 *Holistic rubric (Rogers 2010)*

Apart from the categories, holistic and analytic, rubrics are also to be distinguished in **general or task-specific rubrics.**

For example, if an expected learning outcome of a given course is the development of students' oral communication skills, a general scoring rubric can be used to evaluate each of the oral presentations given by the students. The resulting feedback allows the students to improve their performance on the next presentation (Moscal 2000). If each of these oral presentations focuses on different issues, a task-specific rubric can be used. For example, in a history course, a learning outcome can be that students have factual and conceptual knowledge about different historical events. A task-specific rubric allows the students' performance on each single event according to separated defined scoring rubrics to be evaluated.

In practice, rubrics contain both general and task specific components. Taking the example from above, the purpose of an assessment can be to evaluate students' oral presentation skills and their knowledge of the historical events that have been discussed in the course.

In sum, a lecturer should bear in mind the following issues when dealing with appropriate assessment techniques:

1. Which learning outcomes are to be assessed (e.g. subject matters, generic competences)? Usually, not all but only a sample of learning outcomes is assessed. To choose an appropriate assessment technique, a lecturer has to decide which learning outcomes are to be assessed and which not.
2. How to assess the defined learning outcomes? Is it a formative or a summative assessment? Should it be a written, oral or practical assessment and which is a suitable technique to assess the chosen learning outcomes (e.g. portfolio, essay, presentation, debate, case study, simulation)?
3. How should students' performance be graded? To be able to grade students' performance, grading criteria are necessary and can be systematised in a rubric.

Questions & Assignments

1. Please check the expected learning outcomes to be achieved in one of your lectures. How do you assess whether, or to what degree, students have achieved these learning outcomes?
2. What can you do as quality manager at your institution in order to support teachers in aligning learning outcomes and assessment?
3. How do your students know whether or to what degree they have achieved these learning outcomes, and if not, why they have not achieved them?

Further Reading

- The Eberly Centre for Teaching Excellence offers more information different dimensions of assessment, such as assessing student learning or teachers practice: The Eberly Center for Teaching Excellence and Educational Innovation. *Assess student learning.* Retrieved on January 20, 2015, from http://www.cmu.edu/teaching/assessment/howto/assesslearning/index.html
- Find more information on effective assessment on the website of the Park University: Park University. *Incorporating and documenting effective assessment*. Retrieved on January 20, 2015, from-http://www.park.edu/center-for-excellence-in-teaching-and-learning/resources/cetl-quick-tips/effective-assessment.html
- The LTSN Guide for Lecturers is a guide on assessment for lecturers: Brown, G. (2001). *Assessment: A guide for lecturers*. LTSN Generic Centre.
- The Association of American Colleges and Universities (AACU) has defined a wide range of rubrics: University of Delaware. Center for Teaching & Assessment of Learning. (2015). *Rubics*. Retrieved on January 20, 2015, from http://ctal.udel.edu/assessment/resources/rubrics/
- Tuning Project. (2014). *Educational structures in Europe*. Retrieved on January 20, 2015, from http://www.unideusto.org/tuningeu
- Kennedy, D., Hyland, Á., & Ryan, N. (2006). *Writing and using learning outcomes: A practical guide.* Cork: University College Cork.

3.3 Linking Teaching and Learning Strategies and Learning Outcomes

Based on the chosen assessment techniques, lecturers can develop appropriate teaching and learning strategies that are likely to prepare students for the assessment and thereby help them to achieve the expected learning outcomes.

Talking about teaching and learning strategies we can discover that these are not only about lectures or seminars. Instead, there exists a multitude of different teaching and learning strategies. The following table gives an overview about some common and recognised methods.

Teaching and learning strategies

- **Traditional lecture.** Lecturers play the leading role in the learning process, where they transmit certain knowledge, usually in oral form and at the same time for all students in class. It is frequently adopted when there are many students in class and/or when introducing a certain topic, if an expert is invited to class, etc.
- **Study cases.** Analytic and detailed study of a real or hypothetic situation, where students are expected to suggest interpretations and solutions.
- **Incident cases.** Similar to the one above. Information is not fully provided by the lecturer at the beginning, so s/he acts as an informant answering students' questions and doubts.
- **Focused learning.** The class is divided into groups to analyse and deal with a given topic and/or task.
- **Seminar.** Students work in small/medium-sized groups in order to deal with a topic of interest. They study and analyse the topic, using direct documentation resources.
- **Peer-tutoring.** A student of an advanced level works as a tutor with another student, under the supervision of the lecturer.
- **Small-group work.** Students work in small groups, and the lecturer distributes an action plan describing tasks to be developed.

Global approach (interdisciplinary approach)

- **Project work.** Both individual and/or group work, it is promoted by the students themselves according to their own interests and needs. The lecturer acts as a tutor, guiding and facilitating students' work.
- **Problem-solving.** Usually, in small groups, where students need to identify a problem, then analyse it, formulate and develop hypothesis and suggest alternatives for its resolution.

Source: *Adapted from e-Training course, Module 6. Cultural Preparation Course for North African Students Coming to Europe 2008.*

Considering this package of approaches to teaching and learning, we can now think about how to use them appropriately. To do so, let us continue with Table 6 “Forms of assessment and competences to be assessed” again. Another column has been added, showing teaching and learning formats that help to develop specific competences and facilitate the preparation of different forms of assessment.

Form of Assessment	Competences to be Assessed	Teaching and Learning Formats
Theses Defence of a theses	■ Develop, analyse and judge research questions ■ Find and consider linkages to other themes ■ Apply theoretical knowledge ■ Structure the theses ■ Develop and apply effective working methods to finish the theses ■ Work under time constraints to meet deadlines ■ + competences mentioned for written essays/ reports	■ Concluding colloquium ■ Seminar ■ Problem-solving
Written essays or reports, e.g. ■ Review of articles ■ Critique of contrasting research paper ■ Analyses of text, data, cases ■ (E)portfolio, diary ■ Field work report ■ Work placement report ■ Project report	■ Analyse and reflect theoretical knowledge ■ Differentiate theoretical approaches ■ Criticise ones’ own work ■ Use scientific methods ■ Pose problems as well as solve those set by the lecturer ■ Conduct increasingly complex even if small scale, research ■ Summarise those readings, which seem to be most relevant to their current needs ■ Survey literature ■ Conduct searches for relevant materials in libraries and online ■ Deal with new media ■ Reflect activities/professional skills during a work placement/project/field work ■ Analyse and reflect technical or laboratory skills ■ Reflect and comment on how to transfer theory into practice (e.g. during work placement, project, field work) ■ Work under time constraints to meet deadlines	■ Reading lecture ■ Study cases ■ Incident cases ■ Small group work ■ Problem-solving ■ Mentoring/supervision of work placement/ project action plan ■ Project work ■ Research group

Form of Assessment	Competences to be Assessed	Teaching and Learning Formats
Oral discussion Interview Debate	■ Communicate interactively with different stakeholders ■ Present orally information on analyses, data, results etc. ■ Summarise theoretical knowledge orally ■ Reflect critically and discuss research questions ■ Comment critically on other statements/arguments ■ Formulate problems as well as answer those set by the lecturer	■ (Research) seminar ■ Reading lecture ■ Project work ■ Laboratory course ■ Field work ■ Role play ■ Study cases ■ Incident cases ■ Small group work
(Poster) presentation	■ Summarise key aspects of a given issue and make them understandable to others ■ Creative illustration of a given issue/question/problem ■ Creative operating in a group (if group work) ■ Lead/chair group activities (if group work) ■ Work with other students to co-produce an answer to a problem/discover a research problem ■ Work under time constraints to meet deadlines	■ (Research) seminar ■ Reading lecture ■ Project ■ Laboratory unit ■ Field work ■ Small group work ■ Case study ■ Incident study
Logbook	■ Summarise key aspects and results of a given task (e.g. laboratory unit)	■ Project action plan ■ Laboratory unit ■ Field work
Written exam	■ Repeat, summarise, analyse, reflect understand theoretical knowledge	■ (Research) seminar ■ Reading lecture
Multiple Choice	■ Understand theoretical knowledge	■ Reading lecture

Table 9 *Forms of assessment, competences to be assessed and teaching and learning formats (University of the Sciences 2014).*

Two examples for learning scenarios:

Learning Scenario	What the Teacher does	What the Student does	Expected Learning Outcomes	Form of Assessment
I. Reading lecture	Reading his or her notes to students on a subject-matter	■ Listening ■ Taking notes ■ Memorising	■ Memorise and recall certain terminologies with regard to the subject-matter ■ Describe ways of solutions for problems that were specified in the class ■ Name and list certain criteria to deal with the subject-matter	■ Written exam ■ Multiple choice ■ Oral exam
II. Seminar	Arranges situations in which students... ■ fain knowledge on the subject-matter (e.g. literature review), ■ discuss different (research) approaches to the subject-matter, ■ comment critically on different articles to the subject-matter.	■ Work together with fellow students on a given task ■ Apply their theoretical knowledge to the subject-matter	■ Identify critical aspects of the subject-matter ■ Examine and analyse different approaches to the subject-matter ■ Make informed choices among alternative approaches to the subject-matter ■ Define, interpret and solve problems with regard to the subject-matter through collaboration with others	■ Written essays or reports, e.g. ■ review of articles, ■ critique of contrasting research paper, ■ analyses of texts, data, cases etc.

Table 10 *Exemplary learning scenarios*

Challenges of dealing with constructive alignment in teaching and learning

Designing curricula according to the constructive alignment approach includes various challenges. These are especially based on the fact that the paradigm shift from teaching to learning has been realised throughout by all involved stakeholders. For example, very often students are not sure about what they should learn, how to learn and why. But, at the same time, the lecturer thinks that s/he did explain sufficiently what to learn, how to learn and why. But what does “sufficiently” mean in this regard? From a student’s perspective these explanations were not sufficiently clear and understandable. And in the worst case, it is therefore hard for students to achieve the expected learning outcomes.

Considering this, dealing with teaching and learning strategies means developing multiple and variable learning scenarios in which students are facilitated to apply their knowledge actively. By doing so, they contribute to reaching competences on different cognitive levels. Based on the student-centred-approach, a lecturer becomes a facilitator who prepares certain learning environments as well as a critical friend to the students while applying their knowledge. Therefore, lecturers have to understand students' approaches of learning to reach the expected learning outcomes. In the following, they can deduce methods which support the students' learning activities to cope with the expected demands and assignments in a specific field. Lecturers are meant to facilitate learning processes and not only to provide easy answers. In doing so, students play a more active and autonomous role with regard to their learning processes.

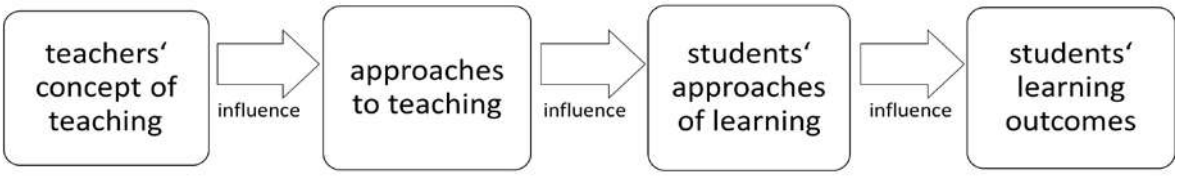

Figure 8 *Impact of conceptions of teaching on teaching and learning (Kember 2009, 2)*

Considering this, quality managers can take an observatory role, supporting lecturers to deal with the challenges mentioned above. They can help to evaluate to what extent the lecturers' concepts of teaching match to students' learning outcomes. If there is a gap, they can make it transparent to the lecturer and offer him/her different approaches of teaching and learning strategies or assessment techniques from which the lecturer can choose to revise his/her teaching approaches.

Questions & Assignments

1. There are many different teaching and learning strategies that focus on student-centred-learning. Please check the internet and look up one strategy that you think can be useful for your course. Summarise this strategy and explain why it is useful for your course, considering opportunities but also challenges.
2. Please select a course that you are teaching and critically examine the design and teaching plan in relation to the principles of constructive alignment. Which teaching methods do you apply? How far do these methods help students to achieve the defined learning outcomes? What could be improved?

Further Reading

- The University of the Sciences offers more tips on teaching and learning activities: University of the Sciences. (2014). *Teaching and learning activities*. Retrieved on January 20, 2015, from http://www.usciences.edu/teaching/tips/activities.shtml#concept
- The Eberly Center for Teaching Excellence and Educational Innovation. *Principles of teaching and learning*. Retrieved on January 20, 2015, from http://www.cmu.edu/teaching/principles/index.html

Chapter 4

Study Programme Evaluation and Revision

4 Study Programme Evaluation and Revision **71**

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

- plan and develop an outcome-based revision of study programmes and their curricula,
- recognise relevant organisational steps to be considered when planning and developing a study programme evaluation and revision,
- set up an evaluation report for study programmes.

4 Study Programme Evaluation and Revision

4.1 Scope of Regular Programme Evaluation

In the previous chapters we have learned how to define objectives and learning outcomes for study programmes. Furthermore, we gained a first insight to teaching and learning strategies and aligning them to the expected learning outcomes and assessment methods. Based on the PDCA-Cycle (see Module 1), we can relate these activities to the "planning" and "doing" phases of a study programme. In the following, we will get a closer look at the "checking" phase – checking how far the defined objectives of a study programme are accomplished, which strengths and weaknesses can be observed and what can be concluded with regard to the continuous improvement of study programmes, and, at its best, in the field of teaching and learning in general, as well.

A study programme evaluation can help to find answers about strengths, weaknesses and room for improvement and therefore help to revise it. It can look at the programme as a whole or focus on single aspects such as the programme profile and qualification objectives, the curriculum design as well as the conditions that frame teaching, learning and assessment procedures. The results of a programme evaluation can make existing risks and hazards transparent but also stimulate possibilities for improvement in the short-, middle- or long-term.

A first study programme evaluation can usually look at the functioning of the programme as a whole, should you not already have one specific question to focus on. For this it can be helpful to have a general overview of already available data (such as student/graduate surveys or process data on the programme and students), looking at the whole of the study programme to then go into depth. If no data on the study programme is available, it would need to be collected or prepared. Once a general overview is available (e.g. in form of a data report), there is usually open questions or identified weaknesses and areas for improvement that need further data and analysis in order to be answered.

The person or committee in charge of the evaluation should decide on the objectives of the evaluation and define the evaluative question(s) (see Phases of an Evaluation in Module 2, Chapter 2.4). Having defined the objectives and key thematic fields of the programme evaluation, the type, method of evaluation and instruments for data acquisition have to be decided:

1. Should it be a formative or summative evaluation? (see Module 2, Chapter 1)
2. Further the evaluation can be conducted internally by the study programme itself with support from a quality unit (internal self-evaluation), by including internal peers such as lecturers and students or be done by the QA Unit (internal evaluation). Alternatively it could be conducted as an external evaluation (e.g. by lecturers and students from other higher education institutions, employers, graduates, experts in specific fields) or maybe even have a mix of these examples (see further box below and Module 2, Chapter 2.2 for pros and cons).

3. Another question to pose is which data will allow me to answer the evaluative questions that have been identified and how can it be collected or is it already available? (see Module 2, Chapter 3.3 and 3.4)

To be able to conduct evaluations and for example analyse strengths and weaknesses of study programmes, higher education institutions need to collect quantitative and qualitative data. Sometimes this can be done ad-hoc depending on the objectives and evaluative questions such as analysing the current student satisfaction of the programme. In such a case the data collection, e.g. a survey, can be conducted during the evaluation. Sometimes though, data is needed which considers time-spans which are already passed by and that cannot be collected ex-post (afterwards), for example the student-enrolment and drop-outs (incl. change of study programme) by semester. Such data is usually collected for administrative purposes and needs to be made available for evaluative purposes, meaning it must be reliable and stored in an accessible database that allows the analysis of the study course of individual students.

To support evaluations at higher education institutions and have data more readily available, they should analyse what kind of essential data they need for the evaluation of teaching and learning and for example for external accountability purposes. They should accordingly install instruments to collect useful and needed data for the whole university regularly (e.g. every year or two) opposed to the ad-hoc collection of data for every study programme evaluation etc. Besides making needed data readily available, saving time and allowing the monitoring of study programmes more easily, such university-wide instruments allow easier comparison between the study programmes. Examples would be regular study-entry surveying or tracer-studies as well as keeping statistics on the course of study. However such instruments cannot collect-data for every possible question that might need to be answered, as they can often only stay on the surface. These instruments should be well balanced and coordinated and be subject to the principle of data minimisation (e.g. collecting only necessary data instead of having an unused data-graveyard).

Usually, this regular data-collection and data-preparation is done in a department for data management or in a unit for quality assurance. It is the role of a QA unit and its director to weigh the setup of certain instruments and databases according to one's own possibilities and needs, to make sure it is reliable and make this data available for evaluation and QA purposes in general.

Possible Forms of Study Programme Evaluation

Self-evaluation of study programmes:

A self-evaluation means that those who are involved in the implementation of the programme or evaluand, are doing the evaluation on their own without external persons being directly involved. Commonly, a commission with representatives from the professorship, academic associates and studentship of the study programme under evaluation could be formed that reviews the study programme regularly. A quality manager or evaluation expert from a central unit could be included as an expert of the process of evaluation and have the role of a consultant. The commission defines the evaluation objectives and methods on how to answer the posed questions and derives the actions gained from

the results. For data-collection and analysis, the central quality unit could be supporting if resources therein are available for this task. A common form to conduct self-evaluation is writing a self-evaluation or self-assessment report according to the objectives and questions posed or external standards and criteria.

Internal evaluation of study programmes based on an internal peer-review:

In contrast to pure self-evaluation, an internal evaluation makes use of experts who are not involved in the study programme implementation, giving an external view on the programme and allowing for more independent and less biased results. As with the above example of self-evaluation, a faculty or higher education institution could define a commission with representatives from the professorship, academic associates and studentship that is authorised to review study programmes of the faculty or higher education institution as a whole. The difference to a commission for self-evaluation would be that the commission members could be from different departments and faculties who steer the evaluation of programmes in the HEI or faculty. The instrument to do such evaluations can be internal peer reviews based on a self-evaluation report prepared by the study programme that includes an analysis of strengths and weaknesses, which is then analysed and assessed by internal peers from other departments/faculties for example including a site visit. The results from this analysis provide information for a follow-up discussion on possibilities for improvement and concrete steps for change which could be also discussed and decided upon by the study programme and the evaluation commission.

External evaluation of study programmes based on an external peer-review:

The faculty/higher education institution could define a group of independent external experts (e.g. lecturers from other higher education institutions, employers, and graduates) to do a peer-review. These external peers carry out a critical consultation on the selected study programmes based on a self-report that includes data and information about the development of the study programme and or specific predefined topics, as mentioned for the internal peer-review above.

4.2 Key Elements of a Regular and Systematic Programme Evaluation

The data basis for programme evaluation and subsequent revision can be quantitative or qualitative (see below and Module 2, Chapter 3.3).

Quantitative data

Used to evaluate a study programme are based on numbers and countables such as the number of students or graduates, number of applicants related to the places available or staff expenses for a programme.

Qualitative data

Used to evaluate a study programme is based on words or text such as information laid down in regulations, official documents on the profile and on the qualification objectives or the student assessment, or interviews with stakeholders or open questions in surveys.

Quantitative and qualitative data help us to find answers to questions about the development of study programmes such as:

- Do exam assignments match up to the outcomes of a course?
- Are there courses in which students fail regularly?
- What is the drop-out ratio, and is it linked to certain sociodemographic or other aspects?
- Are there any (study) conditions unfavourable to student success?
- How many students graduate from the programme, and do so in time?

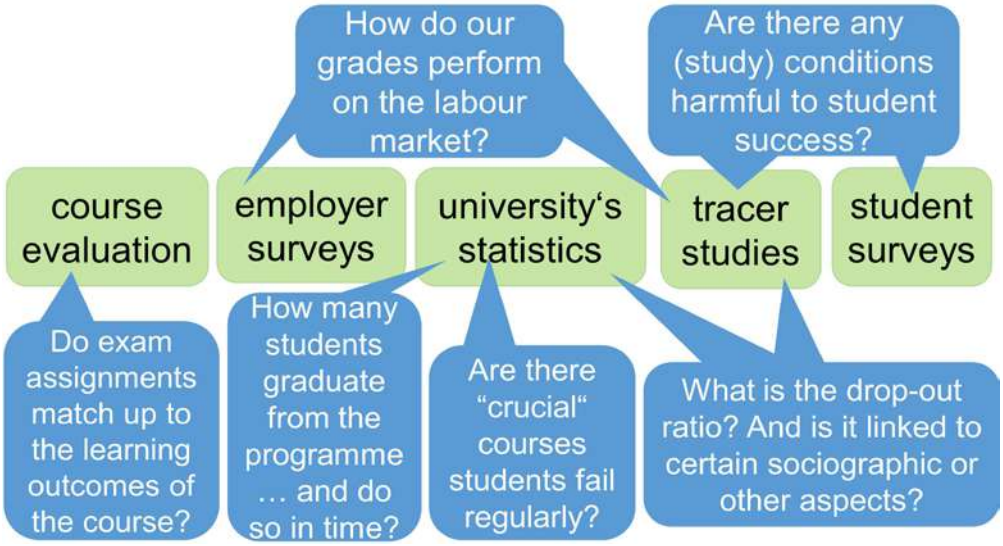

Figure 9 *Data-based review of study programmes (CHEDQE)*

Data and information on a study programme

Depending on the questions we want to answer with regard to a study programme, we have to define a method and data-set that gives us information to do so. As we have already learned in Module 2, such a data-set should be collected based on objective, reliable and valid criteria (see Module 2, Chapter 4.3). In addition, when analysing these data for programme evaluation (as it is for other incidences as well), two more very challenging aspects have to be kept in mind: 1) Does the collected data give the information we are looking for? 2) Is the information well translated with regard to the related questions and purposes? (see Module 2, Chapter 4.1).

The following table gives an exemplary overview on data and information that can be considered both when evaluating a programme, and also when developing a new programme. Of course, each higher education institution has its own particular requirements, interests and needs and available data. Therefore, the table should be adjusted according to the individual objectives and questions to be answered.

Data…	…that gives information about…
Data to be considered when conceptualising a programme (e.g. examination regulation, curriculum design, course schedule)	■ Formal aspects of a programme (degree, number of credits, study schedule, prerequisites etc.) ■ Profile and qualification objectives of the programme ■ Curriculum design (learning outcomes of the courses, assessment system (assessment method, schedule), workload (working hours, credits)) ■ Management of the programme (responsibilities, information flows) ■ Student mentoring and support

Data…	…that gives information about…
Quantitative data to develop/ revise a study programme	■ Number of applications ■ Number of places available in the programme ■ Number of first-year students ■ Number of students per semester ■ Number of drop-outs at a fixed date ■ Number of graduates ■ Number of professors available for a programme ■ Number of academic associates available for a programme ■ Professor/students ratio with regard to mentoring
Qualitative data to revise a study programme (e.g. students survey, lecturers survey, course evaluation, tracer studies)	■ Academic feasibility (see below) ■ Student satisfaction ■ Matching of expected and achieved learning outcomes ■ Mentoring conditions ■ Teaching and learning strategies ■ Assessment workload ■ Student workload

Table 11 *Data and information that can be used for study programme evaluation*

SWOT-Analysis

The above quantitative and qualitative data and information can be the basis for an analysis of the strengths, weaknesses, opportunities and threats (SWOT) (Huamin Research Center et al. 2012) or of more specific questions and topics to be answered of the programmes to be evaluated. The following table shows possible questions to be discussed and analysed if the study programme is to be looked at as a whole with the principle of SWOT. It could be a way to systematically evaluate study programmes in the faculties.

Topic	Questions to Analyse the Strength, Weaknesses, Opportunities and Threats (SWOT)
Conceptualisation of a study programme (see Chapter 2.2)	■ Is the study programme well designed? Focus on aspects such as: ■ Curriculum scheme ■ Alignment of the expected learning outcomes and the courses ■ Matching of theory and practice ■ Possibilities for student mobility

Topic	Questions to Analyse the Strength, Weaknesses, Opportunities and Threats (SWOT)
Management of a study programme (see Chapter 2.4)	■ What can be concluded from the statistical data of the study programme and its students? (e.g. more/less students than places available, more/less female than male students, graduations in expected time) ■ Is the programme successful? Does the study programme live up to the expectations of the institution and the students? ■ Does the programme fulfil the defined criteria for academic feasibility (see definition in the box below)? (e.g. focus on assessment management, coordination of course programme, drop-outs) ■ How are mentoring and service designed and organised? ■ Which resources are available for a study programme in terms of staff, rooms, material? ■ Is the staff properly skilled in fostering the relevant competences? ■ Which challenges have to be considered with regard to the management (e.g. with regard to enrolment; recognition of grades; issue of certificate)
Outcome of a study programme (see Chapter 2.1, 2.3)	■ Do the study programme objectives match to strategic planning of a HEI? ■ Are the defined programme objectives and competences to be accomplished? (e.g. focus on subject-specific, methodological, general competences). Is the programme lacking relevant outcomes? ■ Do the qualification objectives fit to the expectations of future employees? Which competences are graduates in need of? ■ Does the programme fulfil standards set by ministries? ■ Which particularities and outliers do the evaluations bring up and how can they be interpreted with regard to the programme? ■ Which results from the evaluations and statistical data collection are to be considered in the programme review? Are they verified and approved by other observations/data/information?

Table 12 *Questions for a study programme SWOT-analysis*

Excursus: What Does Academic Feasibility Mean?

Whether a study programme can be studied well by the students (such as in the planned time) or not is one important information about the design and quality of a study programme. There is no generally accepted criteria or strict definition when academic feasibility, meaning the feasibility of the course of study for the students, is reached or not. According to the German Accreditation Council, the academic feasibility of a study programme is ensured through:

- consideration of the expected entry qualifications,
- an appropriate curriculum design,
- the information on the student workload, which is checked for plausibility (or, in the case of the first accreditation, estimated according to empirical values),
- frequency and organisation of examination, which is adequate and has a reasonable workload,
- corresponding offers of support as well as
- technical and interdisciplinary course guidance,
- the interests of handicapped students will be taken into consideration.

(Akkreditierungsrat 2010: *Rules for the Accreditation of Study Programmes and for System Accreditation*)

The results of the SWOT analysis are the basis to deduce evidence-based possibilities for improvement of the study programme which later have to be specified into concrete courses of action. The following case on the overload of assessment workload may serve as an example.

Incident Case: Student Assessment Overload

A faculty wants to revise the effectiveness of its assessment organisation and if it serves to "produce" successful students. At this faculty, the written and oral exams are organised in a defined assessment period of two weeks at the end of each semester.

The Department for Data Management conducts data collections on the passed and failed exams for each semester. Based on these data, it was observed that the number of students who fail the exams was very high. To find out why, the dean of the faculty looked at the results of the students' survey, which the quality assurance unit of the university conducts regularly after each second semester. In this survey students complained that the assessment workload was extremely high. Sometimes, they had 2-3 exams per day, meaning that the preparation time for the exams was rather short and tight, and difficult to organise.

Based on this information, the dean and the faculty board decided to improve the matching of the assessment period and the schedules for the exams. Furthermore, they asked the quality manager of the university what else could be done. The quality manager recommended thinking about alternative forms of assessment which could also be conducted during other timeslots of the semester. Not all examinations have to be done at the end of a semester. This approach might even bring more positive effects: 1. Students learn to deal with different learning strategies to get well-prepared for different forms of examination (e.g. portfolio, project presentations, reports). 2. The distribution of exams during the whole semester helps to reduce the cumulative assessment workload at a fixed period at the end of the semester for both the students, but also the lecturers who have to grade the exams. 3. Lecturers apply different forms of appropriate assessment techniques to assess the expected learning outcomes.

Approaches and activities as described in the incident case above, their implementation, their timeframe and the involved stakeholders have to be coordinated, and if necessary, even regulated (see Module 2, 5). Furthermore, it is important that all involved units and stakeholders are informed about these changes in time and in a transparent way.

Quality managers can play a connecting role again: They can moderate discussions about the different approaches for improvement and coordinate the resulting information flows among the involved parties. Furthermore, they can even support by giving effective recommendations for possibilities of improvement, considering and naming the respective advantages and disadvantages as well as opportunities and threats (based on the SWOT-analysis).

Repeating a programme evaluation regularly (approx. every 3-6 years) helps to continuously assess the development of programmes, to check the consequences and the success or failure of certain tools and procedures, and to check how far there are changes to be considered. The quality cycle is to be continued by comparing the current and the nominal status, which delivers the basis for another SWOT analysis and a deduction of activities for further improvement.

The modus operandi with regard to planning, doing, reflecting, and following-up an evaluation was already discussed in Module 2 (see phases of evaluation). These procedural steps can be applied with regard to a systematic study programme evaluation and revision as well.

Having considered this, we now focus more in detail on the design of a self-report for study programme evaluation and revision.

4.3 Writing a Self-Report for Programme Evaluation

4.3.1 Objectives of a Self-Report on Programme Level[6]

A self-report is one of the most important elements of an evaluation process which is based on a peer review, be it internal or external. The self-report is also part of external accreditation processes of national regulatory bodies which primarily focus on accountability and also enhancement. The quality of a self-report determines significantly the benefits and outcomes of such an evaluation approach. It is a key information source for follow-up discussions among the involved parties on possible strategies and activities for improvement and enhancement (in this case of study programmes) according to the quality cycle and the strategic planning (e.g. based on target agreements) of the institution (see Module 2). Further, there is a strong benefit for the study programme itself in writing the report: Dealing with the study programme and analysing, it will give them many insights and information on what is good or improvable etc. It is not often the case that those involved in a study programme have the time to reflect what they are doing in such a deep way and thus get to know a detailed picture of where they stand. Writing a self-report can be therefore a very effective way to reflect on the study programme.

6 The objectives of a self-report can also be transferred to other structural levels of higher education institutions (e.g. institutes, faculties, higher education institution as a whole) or to other thematic priorities (e.g. teaching and learning, research, administration and services).

Based on this, key objectives of a self-report on programme level can be defined as follows:

- Reflected summary of the current state of study programmes based on evaluation results. This may include:
  - Description of the programme profile, qualification objectives, integration of the programme into the structure of the faculty and the higher education institution in sum.
  - Documentation of processes and activities of programme management and how these are interlinked (also those that are still under construction or in preparation).
  - Empirical-based data collection on the programmes that enable meaningful conclusions.
- Comparison of current and nominal state by analysing the realisation of the defined programme objectives with regard to SWOT.
- Based on the SWOT analysis, deduction of required changes and possibilities for improvement and enhancement according to the defined programme objectives.

Generally, it is important to decide on a well-structured self-report for internal evaluation purposes. It should be kept in mind, to include only necessary information, as both the writing and later on the use of the self-report for enhancement purposes can be easier. External processes of accreditation or evaluation according to external criteria, usually set external needs and demands that need to be fulfilled in self-reports. These demands, but also the criteria, could also be a starting point for internal evaluations.

4.3.2 Key Aspects to be Considered When Writing a Self-Report

Writing a self-report according to the afore-mentioned objectives is very time-consuming and should be planned and coordinated carefully as well as aligned to the overall evaluation process and its goals.

A quality manager can be the one who is assigned with the planning and coordinating of the self-report. Generally, the following key activities[7] should be considered:

Planning and structuring the process to develop a self-report

- Support and ensure the information flows to all involved parties.
- Coordination and communication of dates and deadlines with regard to writing the self-report among all involved parties.
- Summary of the collected data and information that is to be considered in the self-report.
- Development of a supporting template with key questions to be considered when analysing data and evaluation results.
- Moderation of meetings in which the elements of the self-report are discussed.
- Support the organisation of the peer review process as a whole, make sure deadlines are met.
- Support and coordination of the site visit.
- Support, coordination and consultation of the follow-up (e.g. making sure a follow-up is organised, strategies, processes etc.).

Quality managers can use the following table as a check-list that supports a systematic process to develop a self-report.

7 These activities are an example and may change due to different requirements and needs of the respective institution or external body. Therefore, they can be broadened or narrowed.

Phase	Activities
Preparation of the self-report	■ Prepare a time schedule for the completion of the self-report. Think about adequate timeframes and conditions to be calculated for the respective chapters of the report. There will probably be some questions that are easy and can be answered quickly, while others need more time for reflection. ■ Coordinate the parties who are involved in writing the self-report and how they are involved (e.g. some will do content-related contributions, others only have to be informed about certain aspects). Coordinate dates and deadlines with the involved parties with regard to their respective contributions such as: ■ Provision of statistical data-set (who? what? till when?) ■ Provision of content (who? what? till when?) ■ Summary of the results of the different data and information sources (who? what? till when?) ■ Provision of evaluation results (who? what? till when?) ■ Coordinate with the respective responsible parties which additional documents are to be considered in the self-report (e.g. tables, illustrations, graphs; regulations of the study programme; course descriptions; course scheme etc.). ■ Based on the objectives and questions of the programme evaluation, coordinate a systematic outline of the self-report (e.g. 1. Information on data basis; 2. SWOT Analysis; 3. Deduction of possibilities for improvement; 4. Conclusion and outlook) ■ Coordinate how and by whom the editing of the self-report should be done (e.g. faculty member or quality manager?): ■ Use a standardised format that is easy to read. ■ Check if the data and information given in the report are complete, valid, up-to-date and reliable. ■ Find out who has to approve the report before publishing. Consider the necessary time for this approval in the time schedule to finish the report.

Phase	Activities
Writing the self-report	**Introduction:** ■ Briefly describe the evaluation process and indicate the objectives and questions to be answered based on the programme evaluation. ■ Summarise the key results of the evaluation. **Main part:** ■ Analyse the results of the qualitative evaluation and the collected statistical data. Summarise and structure the findings according to thematic fields (e.g. teaching and learning, research, structure and organisation). Based on this, take a systematic review on the whole programme. ■ Indicate the identified strengths and weaknesses according to the categories evaluated in the programme (e.g. realisation of the strategic concept and the programme objectives, academic feasibility, mentoring for students). ■ Based on the analyses of the strengths and weaknesses, show possibilities for change and (if possible) name concrete measures to improve and enhance the quality of the study programme. **Conclusion:** ■ For easy reading you can summarise the strengths and weaknesses and the suggestions for change and improvement in a table or an illustration. ■ Finally, give a short outlook on the next steps and how you will continue to use the self-report and the documented results and findings.
Appendix of the self-report	■ Develop an appendix that includes all relevant documents and evidences of the evaluation such as: ■ Statistical report of the programme ■ Regulations of the programme ■ Course descriptions ■ Documents for the certification of the graduation (e.g. transcript of records, certificate, diploma supplement) ■ Information leaflets etc. ■ The documents should have a number, to facilitate the references given in the report (e.g. document 1: Number of students in the study programme electronic engineering from 2009 to 2014).

Phase	Activities
Editorial of the self-report	■ Keep in mind that all questions to be evaluated are answered clearly and are understandable. ■ Write in short sentences, and describe things precisely. ■ Don't use phrases if they are without meaning, unclear or ambiguous. ■ Illustrate complicated aspects by using examples, illustrations, graphics etc. (e.g. illustration about course alternatives in a study programme). ■ Keep in mind that the written text should be understandable and clear to the reader. This helps you to save time later on with regard to additional questions on how this or that was meant.
Distribution of the self-report	■ Send the self-report to the peers making clear what is expected from them and the further procedure. ■ Clarify to whom else the self-report is to be sent (e.g. faculty board, university management), by whom this will be done and how (printed or digital version?). ■ Clarify if the self-report will be published only for internal or also external use and how (printed or digital version?). ■ Clarify which data regulations have to be considered for the publication.

Table 13 *Managing to write a self-report*

After the self-report has been completed, it has to be handed in to the peers in the previously set time-frame. The peers would then analyse it and usually meet the study programme and selected stakeholders in an on-site visit to discuss and clarify any open questions and assure the stated information in the self-report is valid. Depending on the assignment and role given to the peers, they will usually thereafter write a report giving their comments and above all showing room for improvement and possible solutions. The study programme then needs to discuss these results and enhance/revise the study programme where possible and appropriate.

Questions & Assignments

1. How can quality managers or units support the self-evaluation of study programmes?
2. How has a self-evaluation report to be written in order to be useful for the enhancement and revision of a study programme?
3. What measures can be taken to make sure that the self-evaluation report has consequences afterwards?

Further Reading

- ACQUIN. (2009). *Guidelines for programme accreditation procedures*. Retrieved on January 22, 2015, from https://www.acquin.org/wp-content/uploads/2015/12/ACQUIN-Guidelines-Programme-Accreditation.pdf
- TUM. (2014). *Quality management at TUM: Academic and student affairs*. Retrieved on January 22, 2015, from https://www.lehren.tum.de/fileadmin/w00bmo/www/Downloads/Themen/Qualitaetsmanagement/Dokumente/Self-Evaluation_Report_System_Accreditation_January_2014b.pdf
- Winkler, M., Grein, M., Himmel, S., Kaul, M. & Luppertz, C. (2014). Using evaluation data to initiate change in the study entry phase. *ZFHE. Zeitschrift für Hochschulentwicklung*, *9*(2), 118-126.

Chapter 5

External Quality Assurance: Making Effective Use of the External Perspective

5 External Quality Assurance: Making Effective Use of the External Perspective **87**

5.1 Compulsory National and Regional External Quality Assurance **88**

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5.4 From Programme to Institutional Level **100**

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

- analyse the importance of external quality assurance and views to design and revise study programmes,
- reflect on the internal use and objective of compulsory and voluntary external quality assurance,
- identify links of internal and external quality assurance to best benefit quality enhancement.

5 External Quality Assurance: Making Effective Use of the External Perspective

The previous chapters have shown different methods and instruments on how to assure and enhance the quality of study programmes within the university. These procedures were discussed from an internal quality assurance (IQA) point of view: the focus was on how the university can make sure the quality of teaching and learning is on a par with its own set goals and expectations as well as on how to stimulate quality enhancement.

The following chapter will discuss the opportunities, use and integration of external quality assurance (EQA) and the external view and perspective for study programmes and the institutional level as a whole. The self-evaluation report we introduced in the previous chapter often builds the basis for external quality assurance instruments. The distinction between EQA and IQA we made (see Module 1, Chapter 2.1.1), is complemented by the distinction between compulsory and voluntary EQA. This distinction is important to keep in mind for this chapter. Compulsory EQA is for example the framework for national accreditation of study programmes that higher education institutions need to fulfil. Voluntary EQA on the other hand, can be external evaluations and assessments or accreditations according to external criteria (e.g. AUN-QA in Southeast Asia or the internationally operating Accreditation Board for Engineering and Technology (ABET), a private professional accreditation scheme for engineering and technology programmes).

The focus in this final chapter will be on external quality assurance and the connection to the own internal quality management system in order to enhance study programmes. We will discuss how to make best use of the synergies that can be derived for IQA from EQA: how should the internal system make use of the external instruments, procedures and criteria? How can enhancement be supported and duplication of work be avoided which often leads to an evaluation or quality fatigue? In a final step, the last sub-chapter will discuss EQA on institutional level, as a more and more common form of external quality regulation and enhancement in higher education.

Importance of the External Perspective

To be able to offer valuable education in the fast pace of globalisation, it is crucial for higher education institutions to be well connected to the outside world. Apart from using compulsory and voluntary EQA mechanisms and embedding them into one's own QM system, higher education institutions can set up their own internal system to incorporate external and international views and to check if teaching and learning is addressing the needs and challenges as well as to receive valuable input and consultation from an external perspectives.

5.1 Compulsory National and Regional External Quality Assurance

Every country and in some cases regions too, have their guidelines, requirements and procedures that have to be fulfilled and conducted to run a study programme. These are very different from country to country, but two very common instruments in use are accreditations and audits. They are usually run by a government, an organisation or by independent private agencies and can be seen as the instrument of choice introduced in most countries to determine if applicable national and/or regional standards are met. Often these instruments are connected with "the right to exist" meaning that they replace traditional state approval forms of the programme or institution (see Module 1, Chapter 2.3). There are though also cases where external evaluation forms such as accreditation and audits are not hand in hand with approval and are detached from one another. Sometimes accreditation is just voluntary, in which case, it is mostly a tool to reach a different status within the HE system in the country or more prestige etc. Either way, the quality manager should be aware of the purposes of the national and regional EQA framework and its regulations. The same applies to any external QA forms the HEI considers to implement to be able to link them to one's own internal system effectively and to decide which forms of EQA to follow or not.

There are so many different national frameworks and specifics that we cannot list and consider them all in this course book. We will however try to show you the connections and possible synergies. Quality managers need to know their regional and national higher education quality assurance framework and higher education system inside out in order to be able to fulfil requirements and integrate them in their own internal quality assurance and management system.

EQA between accountability and enhancement

The main rationale behind EQA systems and instruments is usually the accountability towards the state and public, to assure the quality of higher education provision, making it comparable and allowing mobility of students and graduates. Further, to a more or lesser degree, national and regional EQA instruments have the objective to support the quality enhancement of study programmes and teaching and learning in general.

EQA systems do also set and propagate standards, address specific societal and political goals and needs such as opening universities to non-traditional students (see Module 1, Chapter 2.4.2.), and therefore adapting to a more diverse studentship. Other examples are emphasising the need of employability of students or the use of outcome based education. Other purposes besides accountability, quality enhancement and societal and political agenda setting are validation and information. EQA instruments and frameworks can focus on these purposes and set standards to support these goals. Generally, all these purposes can be located somewhere between accountability and quality enhancement (Schwarz & Westerheijden 2004, 12 et seq.).

Support trust between EQA and IQA

National and regional external quality assurance systems and mechanisms should therefore not only be seen as control, accountability or steering mechanisms. In fact, they mostly embody different purposes, and above all offer a way of incorporating external views and needs. They allow reviewing the study programme (and institution) with expertise from an external and therefore different point of view. Most countries are conducting accreditation and audits which make use of peer reviews with experts/peers who are able to give valuable advice. Although on the one hand standards are being checked, they still can highlight room for improvement,

which is very valuable to the study programmes and institutions. This specific value, that only people from outside one's own institution can give, should be supported and requested by the programme and institution during the EQA processes. Deans, lecturers and involved persons in general, should be aware of the intentions of such instruments and that EQA processes are very well usable for quality improvement. Spreading this knowledge in the HEI is something quality managers should take care of and put on their agenda with the support of higher management.

To be able to support quality enhancement, there is a need for open discussion and trust between the external peers/experts and the people in the institution. Put simply: the fear to say something wrong or to share challenges needs to be taken away from the participants of such evaluations. Without that, the peers cannot completely fulfil their role and the process might more likely degenerate to an investigation situation where the strategy of window dressing could be the method of choice in the reaction of the institution.

EQA as consultancy and advice

The aspect of consultancy and advice that EQA offers, needs to be incorporated into one's own system to make sure the external input and consultation is being used and followed-up on. The process before, during and especially after the external evaluation process ends, needs to be systematically connected to internal processes and made sure that the valuable knowledge gained is not lost but finds its way into the higher education institution. This also means that a follow-up is not only supported and monitored for one study programme in order to make sure that changes and enhancement are put into practice for example, but also that the gained enhancement and lessons learnt are available and used for other programmes as well as translated to other fields if possible.

EQA: in constant development with room for improvement

The points raised about the attitude of higher education institutions towards external assessments surely have their implication for the external counterparts, too: the peers need to be professional and produce a good collegial working atmosphere during a site visit for example. Generally the EQA instruments would need to have a focus on giving advice and to support quality enhancement in the institutions.

Many countries are still experimenting with their EQA frameworks: like IQA also EQA is developing with open questions and challenges that need to be tackled. One example is the topic of the professionalisation of peers: are the peers knowledgeable enough about their role and tasks? How much training do they need? The other open question is whether accreditation instruments as a form of evaluation can support quality enhancement over a longer period, or will the effect just vanish after a first accreditation and re-accreditation? (Schwarz & Westerheijden 2004, 32). The effect will certainly also depend on in how far the study programme and/or institution gained valuable information and consultation from the first accreditation round and if they were able to actually implement and see changes. Otherwise, it is likely that the involved persons are not really supporting a next round of accreditation.

With their valuable knowledge about higher education and the possibility to do research, higher education institutions can and should take part in this development process of EQA systems. There is still a lot of room and need to build the relationship between EQA and IQA.

5.2 Voluntary External Quality Assurance

When does it make sense to apply for and conduct voluntary EQA reviews and assessment by professional bodies, university networks etc.?

Identify useful forms of EQA that fit into one's own objectives and strategy

The answer depends on the strategy of the institution and/or programme. For some programmes like for example engineering or business, it is of greater benefit to apply for accreditation/review from specialised bodies or organisations. Examples of it are ABET for engineering or the Association to Advance Collegiate Schools of Business (AACSB) for business and accounting. Such accreditations or labels can make sure that the programme or institution abides by international standards and gives the further benefit (which might be necessary for some) that they are well usable for marketing purposes for student recruiting as well as having positive effects on the reputation. Another benefit that such an accreditation or review could give is also an easier student-exchange with foreign countries and institutions. Higher education institutions should analyse where such an accreditation, assessment or "label" can be of benefit and where it may be necessary according to the programme or institutional strategy and goals. For some fields of study it might be more important than for others. In addition, the different reviews, accreditations and labels etc. will not all give the same benefits, some might be more focused on quality enhancement, whereas others for example might just check standards, some might increase the reputation, others might not and so on.

Apart from external quality assurance that focuses on specific study fields on programme level, institutions might also make use of voluntary audits and evaluations that are looking at the system as a whole, such as the Institutional Evaluation Programme (IEP) of the European University Union (EUA) or topic specific audits and evaluation on internationalisation or diversity for example. These can be useful to discover one's own strengths and weaknesses and be especially fruitful and beneficial if the institution considers these topics to be of importance and in need of development as part of their own goals and strategy.

Another option is to organise own evaluations with the help of external experts from other HEIs or external stakeholders. In the case of an evaluation that aims to look at the employability of a study programme, this could be to include experts from the labour market to review the programme accordingly after receiving a self-evaluation report for example.

One advantage that many voluntary accreditations, assessments and evaluations have, is that they do not have direct consequences connected to the right to exist or conditions that have to be fulfilled. They therefore can generally be more strongly aimed at enhancement but don´t have to be, as we have learned earlier already.

Propagate "window-dressing" as a useless strategy

However the problem of window-dressing and confidence to be outspoken with the evaluating party (e.g. the peers and experts) is not totally solved: there are always things at stake that might make people and institutions not divulge certain information or knowledge for fear of being judged, disadvantaged or bad mouthed in the community for example. This is actually a challenge that programmes and institutions need to learn to make use of the external expertise in the best way possible to tackle these challenges. Certainly, there needs to be the right setting for it to work. Quality managers should support the trust building within the institution and between IQA and EQA for this purpose. This process needs time but can be supported with communica-

tion and sensitisation activities. The more experience the institution and external body gains with time, the more trust, understanding and acceptance will grow.

Voluntary EQA can be a good way to start introducing external quality assurance processes in the institution. It can be used to pilot single study programmes for such forms of peer-review in order to gain experience and implement it on a larger scale thereafter without the fear of negative consequences.

5.3 Linking IQA and EQA: Nurturing Synergies and Making Use of the External Perspective

There are many reasons why the quality assurance of teaching and learning should be a focus of higher education institutions (see Module 1, Chapter 2.4). For starters, it is common in most countries, that states require higher education institutions to fulfil their standards and procedures to operate and to setup quality assurance mechanisms and instruments. These external quality assurance systems can have multiple objectives, ranging from accountability to supporting mobility and enhancement. In addition, the reasons for assuring quality can also vary a lot from institution to institution.

The compulsory part of quality assurance sometimes leads to trying to make things fit to fulfil the external requirements with the status quo of what is already there. Institutions and study programmes often "window dress" what is really happening in the institution. Sometimes more effort is put into hiding the weaknesses instead of trying to have a valid picture and developing instruments that are helpful for the process and quality enhancement. This attitude will neither improve quality in the direction of the external standards, nor of quality enhancement beyond these standards.

Sensitise the institution about purpose, goals and objectives

Quality managers must make sure that the goal and objective to enhance the quality of teaching and learning is common to all involved individuals by sensitising the faculties and departments in that regard and making sure the purpose of such quality instruments and quality management in general is communicated over and over again. Such insight about the purpose and usefulness will certainly need time to trickle down to every department and to be accepted by everyone, especially in a field with many human resource changes such as in higher education institutions and very autonomous individuals with an academic and scientific background. The quality manager needs to make sure to support a growing acceptance and positive quality culture within the institution. One way could be to offer compulsory introductory workshops for new lecturers for example and regularly organise sensitisation events about why quality management is useful and important as well as on how it can be implemented effectively. Quality managers should build upon role models in the institution and make use of multiplicators in the HEI for their own internal capacity building of quality management and enhancement.

Go beyond fulfilling EQA standards and requirements

Concentrating and stopping at the fulfilment of the EQA requirements, won´t produce an effective IQA system and stimulate enhancement on its own. Higher education institutions should use the external process as a tool for enhancement where possible and link it to their own system to be effective. They need to analyse

and understand the external standards, criteria and requirements and interprete them in their own context by giving priorities and/or adding their own touch.

The question that higher education institutions should ask themselves are therefore:

- What are we currently gaining from the external form of evaluation?
- What could we further do to gain more from the external form of evaluation?
- Do we want to soley fulfil standards or also use EQA for evaluation and enhancement purposes?

Adapt and enhance EQA to individual needs and objectives

Usually EQA at the national or regional level leaves room for the HEI's own interpretation and accent giving. In this sense compulsory EQA, with its standards, guidelines and procedures, forms the context, is an important factor for quality management systems, and as such needs to be considered for internal quality instruments and mechanisms.

At the level of study programmes, the HEI's own system needs to make sure that the external criteria and standards are reflected in the curriculum and provision of the programme. The accreditation of study programmes for example, is not only to be seen as an external instrument that is looking at accountability. To be effective, the accreditation process needs to be incorporated and linked with the internal quality management system. It must make sure that the valuable information received about the current state and the areas for improvement, are not just an issue until shortly after the external process, but that they are actually part of real evaluation process in the institution. Further, the internal system needs to make sure, that the external process will actually deliver useful information to enhance the internal quality. That also means that the self-report and prior self-evaluation need to give a fruitful basis for the peers to conduct their assessment, consultation and conclusions. Writing a self-report based on external standards and criteria is often a good starting point to receive an overall view of the study programme. During the evaluative process of preparing the self-evaluation report (or afterwards) the study programme can evaluate specifics and details of the study programme that go beyond the required criteria with support of the quality manager. Usually areas in need of further evaluation and analysis are brought to light by the external accreditation process. In this sense, accreditation can be used to stimulate the study programmes and the institution's quality enhancement and revision of the study programme. Table 14 shows only some possible uses of accreditation for the stakeholders of higher education which should be kept in mind and analysed for one's own context, when linking accreditation as a form of EQA to your quality management system.

Higher education institutions and study programmes need to decide on their own internal use of EQA forms knowing the expectations and objectives the government and other stakeholders pursue with it in order to embed it into their system and procedures accordingly. As depicted in the course book of Module 1 (see Module 1, Chapter 5) for the IQA system, it is crucial to consider one's own context.

Users	Uses
Government	■ To define national higher education ■ To assure quality higher education ■ To assure a quality labour force ■ To determine which institutions and programmes receive public funding ■ To accept into civil service only those who have graduated from accredited institutions ■ To generally use quality assurance as a means of consumer protection
Students	■ To assist in selecting an institution for study ■ To ensure transfer between accredited institutions ■ To ensure admission at the graduate level at a different institution from that of the undergraduate degree ■ To assist in finding employment
Employers	■ To assure qualified employees
Funding organizations	■ To determine eligible institutions for funding
Higher education institutions	■ To improve institutional information and data ■ To enhance institutional planning ■ To determine membership in certain organizations ■ To facilitate transfer schemes ■ To assure a qualified student body

Table 14 Uses of accreditation systems for different stakeholders (Worldbank 2004, 5) (own table)

The usual process of an external evaluation with the three steps of a peer review - self-evaluation, site-visit, report and verdict/result (see Module 1, Chapter 3.3.4) - should not only be used for the fulfilment of external quality assurance requirements and standards, but should also be incorporated in the overall IQA of a study programme and/or institution. For example, the self-evaluation phase of an EQA process could be enriched with one's own internal criteria or questions, in order to evaluate not only the external criteria but also one's own challenges and goals.

Importance of systematic follow-up processes

In addition, the results of an accreditation should be systematically linked to the internal quality management system, meaning that procedures are in place after the verdict, that are not only addressing possible conditions received by the accrediting body, but that also address room for improvement and lessons learnt. Without systematic follow-ups, there is the risk that accreditation and the award of the seal can be misunderstood as a free pass to stand still until the next external review is on schedule. Without proper internal instruments of evaluation and follow-up, external quality assurance is useless for the development and improvement of study programmes and institutions.

Any compulsory or voluntary EQA must be therefore embedded in one's own internal system. The internal mechanisms, instruments and structures on the other hand, must make sure that the relevant data is available for the external processes.

IQA and EQA have to be linked and in synergy to fulfil their assurance and enhancement objective: on the one hand the internal system needs the external view, input, support and consultation as well as standards to be compatible and comparable with other HEIs and on the other hand the external system is strongly relying on a well-established IQA system which has supporting instruments and procedures in place. EQA relies on internal instruments, preparation, self-evaluation, available data, and follow up procedures in the higher education institutions. A good and strong IQA system therefore enables the higher education institution to be well prepared for EQA not only in a sense of "passing" accreditation for example, but going beyond that, to have a well-balanced and well-thought and functioning system with procedures in place that support internal change for assurance and enhancement of the quality of teaching and learning.

A strong IQA system not only assures and enhances quality, but it underlines the ownership of the higher education institution when it comes to quality of teaching and learning, allows it to self-diagnose itself and can support its own autonomy from the state as well as from other stakeholders. It also gives the institution information and argumentation at hand for external demands or criticism that come from stakeholders such as the government or the industry and employers for example.

Setting up and running an internal quality management system (QMS) is also a way to make sure the institution is compatible and competitive both nationally and internationally. If the institution needs or wants to focus on its international competitiveness, it can make sense to apply for voluntary external quality assurance seals, labels and accreditation etc. (see Chapter 5.2 and Module 1, Chapter 2.1.1) for the institution as a whole or for specific study programmes. Universities in regions that have a common quality assurance framework for teaching and learning, have the advantage to already have a common framework with standards, guidelines or procedures they can focus on and that can be used for comparisons with competitors (see Chapter 2.2).

EQA as complementary and support of IQA

The discussion above shows, that EQA cannot be standalone nor replace IQA, but as a framework it can and should complement and support the IQA systems. Further, to be assured and enhanced quality must be in the hands of the process owners which in teaching and learning is usually the study programme or lecturer, they are the teaching and learning experts and need to implement the system, procedures and changes. Without ownership this is unlikely to happen.

The following table summarises possible questions that can help to find reasonable linkages between EQA and IQA to complement each other and with it to make them more effective and efficient. As every country has its own EQA framework and context, the questions are kept broadly and intended to help you to find links primarily with compulsory EQA. They can also be used for voluntary EQA. Further, you will find that the questions could apply to strict internal quality management processes as well. A quality manager can use these questions and try to answer them to find possible linkages of EQA and IQA giving concrete ideas and propose solutions for existing challenges and areas of improvement. They should be made transparent to one's own HEI in order to take measures to further develop one's internal quality management system.

Guideline questions to link EQA and IQA

Linking EQA and IQA	Questions to ask...
1. Embed EQA processes in the internal QM system	■ How is external quality assurance currently reflected in the internal system? ■ What is our objective with the EQA processes in use? ■ Which external processes support our internal system? ■ What are the procedures before and after the EQA process? ■ How can the external process be made most fruitful for the HEI? ■ What own objectives can be supported by EQA? What is expected from EQA? ■ Are there synergies with internal procedures, such as internal evaluation, that can be exploited? ■ How does it make sense to link the EQA outcome to internal processes and decisions? ■ How can the external process be best used for an internal evaluation purpose? ■ When do the EQA processes take place? How can they be best integrated in the HEI's work-flow? ■ Can unnecessary work be avoided?
2. Consider demands and procedures of EQA	■ Can and is the needed data and information being collected? ■ How can certain demands and standards be internally evaluated and assessed? (e.g. learning outcomes of study programmes) ■ Are the internal instruments considering the external criteria? Where and how should they?
3. Support EQA procedures with IQA and vice versa	■ Do people in the HEI know the objectives of the EQA processes as well as their own internal ones connected to the process? ■ Do the relevant people know how to conduct the EQA process? Are they prepared for it? If not, who prepares and informs them? ■ Is there a need of quality managers on study programme or faculty level and how could this be organised? ■ Is there a procedure for follow-up? If not, how could it be best setup in order to support change and include the relevant stakeholders? ■ Are there services or is there training for the programmes/teachers etc. to support them in their challenges and quality enhancement? What services or assistance might be needed?
4. Round up and extend the EQA process	■ Is the objective of the EQA process compatible with that of the HEI? ■ What is the EQA process missing in order to support one's own objectives? (e.g. study programme enhancement) ■ What internal procedures or instruments could be added to the external EQA process in order to support the HEI's own objectives? (e.g study programme enhancement)

Linking EQA and IQA	Questions to ask...
5. Effectively use external expertise/ view for the study programmes and institution	■ How can and should the external views and expertise be used for quality assurance and enhancement of study programmes and the institution? ■ Are there any voluntary EQA processes/systems that would support the HEI's own purposes? ■ Can specific international voluntary EQA support the HEI's own internationalisation strategy? ■ How can the HEI's own system make sure it considers external stakeholders and knows their requirements and demands? ■ How can we make sure that our study programmes are up to date and fit into relevant external and international demands?

Table 15 Guidelines questions to link EQA and IQA

Consider context, support and resistance of individuals and feasibility

When linking and designing internal quality enhancement procedures and the system, the internal context of the higher education institution should never be forgotten. The system must also recognise that it is dealing with people who have their own opinion on quality management: some might support the planned procedures, others might be indifferent or not support the system and procedures at all. Procedures or processes can be planned down to the smallest detail and with perfection but still have no chance of success if they are not compatible with the HEI's own context and every day work. Sometimes the risk can be even to plan in too much detail and leave no space and creativity for the individual. Analysing and thinking about possible restraints and resistance beforehand and evaluating its objectives and impact afterwards are therefore crucial tasks that should be considered by quality managers. One of their tasks is to manage resistance (see Module 5).

Linking EQA and IQA: Example of External Study Programme Accreditation

When it comes to study programmes, the internal quality assurance mechanisms should be linked to national and regional EQA: criteria, standards and guidelines need to be considered in the context of the higher education institution and incorporated in processes like setting up a study programme and evaluating and revising it. In the context of national regulation that requires accreditation of study programmes every five years, an internal quality system would need to make sure to collect data which will allow it to be knowledgeable about the standards and topics the assessment will look at. Further, the system must be ready to conduct self-evaluation and prepare a self-report. Often the data, meaning the methods of data collection and its analysis, can be further improved and it is a steady task of the institution to enhance the collection of meaningful data: for example it is still an open question, how to truly assess, if the learning outcomes of a study programme have been achieved or not.

The self-evaluation and self-report

The process of accreditation starts with a self-evaluation process and the writing of a self-evaluation

report according to pre-set standards and criteria. Apart from integrating the process with one's own internal procedures and timelines for quality assurance and the conduction of the study programme, the self-evaluation can be seen not only as part of the accreditation process but also as being part of the HEI's own internal quality management system: while conducting the self-evaluation according to the external criteria, the study programme could address own challenges and/or standards and criteria on top, that are set by the institution or faculty (e.g. own institutional objectives). Usually, the external criteria are quite broad in order to give study programmes the freedom to address the HEI's and study programme's evaluative questions. If possible, these questions could be made part of the report which is handed in to the peers to be discussed during the site visit.

If these internal evaluative questions are not compatible with the external process of accreditation, they could still be tackled during the self-evaluation phase and be pursued by their own means (e.g. in form of pure self-evaluation or with an internal peer-process etc.).

The self-evaluation report writing is a very effective way for the members of a faculty to revise study programmes, to review their own doing and identify strengths and weaknesses. In day-to-day business there is often no time to deal with certain topics of quality assurance in such depth. Analysing and writing down the results of a programme evaluation in a systematic manner that needs to be understandable by externals, can also be very fruitful for the programme and involved persons. This process of writing can show open questions that need to be answered, clarify objectives and goals as well as help to reflect and structure the information and ideas that are already at hand. This can be very useful to reflect the HEI's own objectives and goals for example, and to evaluate if the study programme staff are all informed and if they share the same ideas and objectives. Internally, the self-evaluation report can be very useful to initiate and support communication, e.g. to make certain details and information transparent to all involved persons of a study programme or for documentation purposes within the university. It should be considered if and what kind of internal use of the report can be fruitful. Guidelines on how to write a good report can be found above in Chapter 4 and in the course book of Module 4 (see Module 4, Chapter 3).

The site visit

The site visit will be conducted by the external peers who will usually talk to the different stakeholders separately (e.g. management, lecturers, students, alumni and employers) and clarify any open questions they have after reading the self-evaluation report and the study programme. A site visit is usually one to two days long and follows procedures and scheduling of the external body but usually allows institutions to include their own programme points that will be discussed with the peers beforehand. Usually there will be a general welcoming session followed by group interviews and discussions with the stakeholder with in the end final remarks and first results by the peers.

When the peers visit the study programme, the representatives of a study programme should not just passively answer questions but be straightforward and jointly shape the site visits by also introducing their own questions and making sure that the peers are helping the programme with consultation and by highlighting areas of improvement.

Usually it will also be helpful to give the peers a general overview of the institution and study programme and a tour of the campus to introduce them to your general context. If the institution and/or programme is new with the concept of a site visit, it might be a good idea to conduct a "mock visit" beforehand to give all involved persons the possibility to familiarise themselves with it. Depending on the purpose of the external evaluation, site visits can look very different in their procedure and atmosphere.

The report and follow-up

The report by the peers will be then a manifest documentation of the outcome of the assessment and visit. Here is where the actual work for the study programme and institution really begins although many might feel the biggest workload has already been done. As much as the process might already have been fruitful until here, the report gives the start for the enhancement process and must be therefore integrated in the internal quality management system with set procedures and possibly further monitoring. It must be clearly decided who will receive the report and for what reasons with which responsibility. The same commission/team that did and accompanied the self-evaluation would usually be in charge of organising the follow-up together with the quality manager. The institution could define certain procedures which might also incorporate the role of higher management and students etc.:

- Which challenges and areas of improvement are being tackled first and how?
- Is further support needed and by whom?
- Are further external experts needed or can the programme cope with the results and further action itself?
- Does the HEI see the same difficulties in other study programmes and could there be support by the HEI to help overcome these?

The follow-up is perhaps the most important part of such a procedure and at this stage the external experts in most countries are usually not involved anymore. This only underlines the fact that the institution needs to setup and link the follow-up to its own system.

The first step after the report is to internalise the results, meaning to fully understand them, reflect on them and to be able to relate to the opinions and results of the experts. Without this step, the motivation to change will be very low.

Afterwards it needs to be decided which results need to be tackled and prioritised. Might there be some that are not changeable due to different reasons? Others might need more insight to be able to be solved or tackled. This process should be in the clear ownership of the study programme but still defined within a certain framework of the HEI, meaning also with the support from quality managers, the faculty and the central higher management.

Sometimes the report might also help with internal complications, e.g. between the higher management and staff from the study programme, giving arguments and evidence that the programme might need support from the institution in specific cases (not only budgetary needs) or that the programme is not doing a good job. This should also be considered for possible procedures. One clear requirement to deduct is that the whole process needs to be professionally coordinated and supported by quality managers as a sort of an intermediary.

The quality managers need to update their knowledge regularly on methods and procedures on how to best support these processes. Doing organisational and higher education research, being creative and trying out new things will help to improve on how to best support and proceed with evaluation and follow-up measures. Doing so can be an important pillar for one's own institution and quality management system.

Both EQA and IQA should stimulate systematic quality enhancement. One barrier is often that external parties do not know how higher education institutions work and on the contrary, higher education institutions are not receptive enough about the external needs and objectives as well as gains it can have from them. It is a question of trust that is hindering or allowing stronger collaboration: trust is a fundamental basis on which both IQA and EQA can be combined to serve the same goal of quality enhancement so that the challenges can be jointly tackled without the fear of being penalised or disadvantaged.

To summarise, in order to make sure that EQA supports the quality enhancement of the institution the following points should be considered:

Summary: points to consider for an effective EQA implementation

- Make sure the purpose of EQA is clear.
- Analyse current connections between EQA and IQA.
- Analyse and define what the institution can learn from EQA. What is the institution's own purpose to engage in EQA?
- Adapt and improve the EQA processes to be useful for the HEI's own system (e.g. add own standards and criteria).
- Develop clear follow-up processes for EQA procedures.
- Integrate EQA and IQA processes.
- Support mutual understanding between EQA and IQA as well as in the faculties.
- Find the right balance between "force" and "freedom" in the HEI's own IQA system.
- Use EQA as an external force to support internal change.
- Analyse stakeholders and their level of engagement on the different levels – define procedures.
- Support the faculties with expertise (didactics, capacity building etc.).

5.4 From Programme to Institutional Level

A trend that can be seen in many countries is the one of lifting the level of external quality assurance reference from programme to institutional level. This means that external bodies are no longer only looking at the single study programmes but at the system as a whole: how does the university make sure it complies with given standards and assures and enhances the quality of teaching and learning? Is the institution able to conduct self-diagnosis and react to it?

EQA cannot function without a working IQA system

Looking at the institutional level, the idea and hope is, that on the one hand, a more systematic internal quality assurance is set up in higher education institutions. On the other hand, that quality assurance can be implemented according to the specific context and needs of the higher education institution by underlining that "one size does not fit all". It considers and respects that those who are actually delivering higher education have to manage and enhance their quality being owner of this process. It also supports what we have said earlier in Chapter 5.3 that in order to enhance quality and fulfil EQA, a system must be in place that is above the programme level, because many things are actually not in the hands of the single study programme only.

Indeed going from programme to institutional quality assurance is a chance for higher education institutions but on the other hand also a big challenge and "continuous" loop: setting up a quality management system needs resources, has to change routines and mind-sets, it changes power structures, needs new professionals and requires lecturers, deans, managers etc. to fulfil new duties and responsibilities.

Integrating the external view into the internal QMS

Still the new focus on institutional quality assurance does not mean that the external view and expertise is not needed on programme level. Institutions can then see where they need external guidance and support, and where they incorporate views of stakeholders freely on their own. One option could for example be to run internal accreditation of study programmes where external peers and stakeholders are involved. Generally, the institution should always consider surveying the different stakeholders (such as graduates, employers, politics, society etc.) and use the expertise of peers to enhance teaching and learning on the level of study programmes. One very common and useful instrument in this regard, is to conduct tracer studies and deduct the quality of provision as well as challenges that alumni face which the programmes might need to address.

Other possibilities are a constant exchange of study programmes with employers, the industry and trade unions in form of single organisations or associations. Employers can also be surveyed about their needs, which can then be incorporated into the curriculum if suitable.

Study programmes and institutions should be clear about their stakeholders and can use quality assurance instruments to make sure their needs find their way into the institution and check if they actually do afterwards.

Generally by incorporating external views the internal quality management system can further make sure that societal needs and international standards and trends etc. are being introduced to the higher education institution.

Stakeholder analysis and engagement levels

The role of a quality manager can be to identify and analyse the different stakeholders on the different levels of the HEI and discuss them with the management, faculties and departments. Together it should be defined, in how far the stakeholder input and expertise is needed and in how far stakeholders should be involved and their views considered. The following table shows different levels of engagement for stakeholders including roles, engagement tools and anticipated effects. It can be a useful tool to decide on the stakeholder role and engagement level. Once this is clear the quality manager can foster different QA instruments and tools that can be used best to include the stakeholders and thereby further develop the internal quality management system accordingly.

	Level of engagement	Stakeholder roles	Engagement tools	Anticipated effect
Notify ↓	Stakeholder may encounter untargeted project publicity Information made available	Stakeholders as passive recipients of uncontextualised information Dialogue with project staff is not expected	Untargeted publicity Access to minutes/ documents Static website	Potential for peripheral general awareness
Inform ↓	Stakeholders are regularly and reliably informed, made aware of their rights and ways of participating in the project Stakeholders informed	Stakeholders as passive recipients of broadly contextualised information Dialogue with project staff is implicitly welcomed but not explicitly invited	Briefings Regular blogs Targeted letter	Potential for informed, contextualised awareness
Consult ↓	Project staff obtain views of stakeholders. Stakeholders receive full feedback on decisions taken Stakeholder consulted	Stakeholders as respondents Designated consultation space/time in meetings Feedback/right of reply strategies Some dialogue with project staff is expected	Comment/opinion polls Focus groups (stakeholders as respondents) Project staff led consultation workshops Project staff led questionnaires, interviews	Confirmed widespread contextualised awareness Emergence of reaction data

	Level of engagement	Stakeholder roles	Engagement tools	Anticipated effect
Involve ↓	Project staff work with stakeholders throughout decision making process to ensure views are understood and taken into account Stakeholder input	Stakeholders as project team members Stakeholder appointment on POG Participation in skills training	Workshops Voting Active focus groups Joint-led consultations Interviews (open-staff directed)	Emergent reaction data is not framed exclusively by project staff Stakeholder agendas are collected and recognised
Collaborate ↓	All aspects of decision making processes are undertaken in partnership with stakeholders Stakeholder shaped	Stakeholders as collaborators Stakeholders on management committees Stakeholder shaped policy making Stakeholder interest/ action groups	Stakeholder-led consultation Interviews open/ closed (stakeholder directed) Open forums Rich picture activities Away days with stakeholders and project teams	Agendas emerge only from collaborative activity with stakeholders
Empower	Stakeholders set agendas for change. Self organisation and responsibility over management is held by stakeholders Stakeholder owned	Stakeholders as designers (independent) Distributed decision making Stakeholder managers Stakeholder 'ownership' of resources, events, policies and learning	Stakeholder managed programmes Stakeholder agenda setting Stakeholder managed consultation activities and tools development	New mechanisms are established which are stakeholder owned Project is self-sustainable with no expectation of project team intervention

Table 16 *The ladder of engagement (Bartholomew, P. & Freeman, R. 2009, 2010, adapted from Rudd, T., Colligan, F. & Naik, R. 2006)*

Questions & Assignments

1. How is external quality assurance organised in your country and which benefits, drawbacks and challenges do you see with implementing it in your own institution? Is it stronger control or enhancement oriented?
2. How is external quality assurance reflected in your institution, how is it used or not used?
3. Which measures could be taken in your institution to link EQA and IQA and for what purpose? Which positive consequences would you see? Which challenges/threats might have to be considered?
4. How is external quality assurance being perceived in your institution? Elaborate how you could enhance the acceptance in your institution.
5. Analyse your internal quality management system and the external QA you undergo. Where do you see duplicate work and where are potential synergies?

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With financial support from the

Federal Ministry
for Economic Cooperation
and Development

Supported by

DAAD
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Dialogue on Innovative Higher Education Strategies