Assessment and Demonstration of Achieved Learning Outcomes: Recommendations and Good Practices

February 2016

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nederlands - vlaamse accreditatieorganisatie

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Outcomes of the NVAO
Peer Learning Event on
29-30 October 2015

by Thomas de Bruijn

Februari 2016

Introduction On 29-30 October 2015, the Accreditation Organisation of the Netherlands and Flanders (NVAO) hosted a Peer Learning Activity (PLA) on the Assessment and Demonstration of Achieved Learning Outcomes. The event was organized in collaboration with the Dutch Ministry of Education, Culture and Science and the Erasmus+ agency EP Nuffic.

The European Standards and Guidelines (ESG), especially with the 2015 adjustment agreed upon in Yerevan, emphasize the centrality of learning outcomes (LO) in the concept of student-centred learning and teaching (see: ESG 2015). Assessing and demonstrating the achievement of learning outcomes are of vital importance for connecting higher education (HE) with larger society. Achieved learning outcomes are what students take with them as they enter the labour market and embark on a career in work and lifelong learning. While the adoption of learning outcomes to describe the final qualifications of study programmes has been accepted well in higher education in the European Higher Education Area (EHEA), assessing and demonstrating achieved learning outcomes still need attention, as is underlined in the Bucharest Communiqué of 2012. This forms the major impetus for setting up a PLA on this topic.

The primary goal of the PLA was to bring together stakeholders from quality assurance agencies and institutions of higher education in the EHEA to share knowledge and good practices, and arrive at formulating a set of guidelines for successfully implementing the assessment and demonstration of achieved learning outcomes. This has certainly worked out well: the event brought together professionals from 13 countries and just as many experiences with implementing student-centred learning and learning outcomes.

The discussions during the PLA made it clear that the topic of achieved learning outcomes brings up a number of issues connected with the use of learning outcomes in general on which there still is a lot of uncertainty and difference of opinion among stakeholders. These issues include the technique and idiom used in formulating learning outcomes, the balance between formalism and autonomy in the use of learning outcomes in developing programmes, the involvement of students and other stakeholders, and the role of internal and external quality assurance in all of this. Besides, the contexts of higher education and the practices of implementing learning outcomes differ a lot. In light of this, it becomes evident that:

a) the topic of achieved learning outcomes and their assessment and demonstration cannot be seen in isolation from the general use of learning outcomes;

b) there is no one single method or guideline for the implementation of achieved learning outcomes.

The complexity of achieved learning outcomes does not diminish the urgency and relevance of the exchange of experiences and views on this topic. The PLA demonstrated a great eagerness to learn from each other, to develop a common language and to share practices and experiences on the topic. In the light of the current state of the debate and in response to the hesitation expressed at the PLA towards directive guidelines, it is fitting that the results of the event are presented here as observations and recommendations on themes that are relevant to the assessment and demonstration of achieved learning outcomes.

By linking these to good practices and ideas presented at the PLA, and also adding some warning words, the current document is intended as a tool for stimulating and facilitating further communication and the development of existing practices.

The current document is also not a final statement on the topic. It is evident that much more research is needed to give an overview of how the assessment and demonstration of achieved learning is put into practice by institutions and quality assurance agencies throughout the EHEA. The PLA was an important step in the right direction, but should be followed up by more, similar activities.

Thomas de Bruijn

The Hague, February 2016

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Summary of Recommendations

Related to the presentations and workshops during the PLA and the ensuing discussion, the following recommendations can be formulated. These will be presented in more detail in the subsequent parts of this document and connected with a short description of related good practices and lessons learnt.

Recommendations with respect to learning outcomes

1- It is all about learning outcomes: consider intended and achieved learning outcomes as two sides of the same coin

- Keep things simple: implement learning outcomes in the course of regular development and improvement of education; use simple rules of thumb in the definition of learning outcomes (e.g. "start with a verb"); make them student-focused and measurable; use to the language of the teachers and avoid discussions on semantics or methodology.
- Make sure learning outcomes cover the important elements in a programme, but do not try to be too detailed.
- Involve all stakeholders in the formulation of outcomes, both internal – teachers and students, as well as external – the professional field and prospective employers.
- Make sure that the formats of teaching and assessment align with the intended learning outcomes.
- Calibrate the difference between learning outcomes at the level of 'short cycle', 'bachelor', and 'master'. Learning outcomes at lower levels should be defined on their own terms and not as 'light' versions of those at a higher level.
- Learning outcomes tend to be more detailed for programmes with a strong professional orientation. Allow enough freedom for teachers and for innovation.
- Pay attention to generic, transversal competences, which are overly generic and lack a connection with domain-specific learning outcomes, as this makes them hard to transfer. This also goes for '21-st century skills', which require integration of knowledge and skills from the traditional domains.

2. Use learning outcomes as a tool for developing and improving education, not as a goal in itself

- Learning outcomes should be a 'living' element and shape the formats of curricula, courses, teaching, learning and assessment. Define and implement them in a process of team-based co-creation, not as an administrative obligation.
- Maintain a good balance between making learning outcomes conform to external qualification frameworks and expectations in the professional field and autonomy for teachers and institutions.
- Learning outcomes should be updated regularly; some tend to become out-dated faster than others, as knowledge, technology and the demands in the labour market change.

3. Link learning outcomes to national and international qualification frameworks

- Look at learning outcomes as the student's ticket to the labour market and further education.

- Make learning outcomes relevant by linking them to national and international qualification frameworks.
- Matching and benchmarking learning outcomes to qualification frameworks should not stand in the way of innovating education and exploring new field of knowledge.

4. Use quality assurance to stimulate and improve the development of learning outcomes, not as an instrument of control

- Regulate the assessment of final projects or theses in external quality assurance, to prevent that teachers feel that they lose control over the programme. External reviewers should not duplicate the assessment of individual students but focus on the overall achievement of the intended learning outcomes.
- Take care to balance the attention for learning outcomes in internal quality assurance with looking at other major aspects of the learning process, such as conveying attitudes or character development.

5. Follow through the concept of student-centred learning in the assessment and demonstration of achieved learning outcomes

- The formats of assessment should be congruent with the intended learning outcomes and with the formats of teaching and learning, by using instruments such as peer- or co-assessment.
- The development of student-centred assessment should follow the transition to student-centred learning and avoid teacher-oriented approaches which assess the curriculum rather than the learning by the students.
- There is much in a study programme that cannot be easily assessed, such as attitudes. Take care that the emphasis on competences or knowledge leaves enough room for properly assessing other aspects which have great value for students and for society.
- Structure the assessment system, and make sure that methods and criteria are valid. Do not underestimate the challenge this can pose.
- Using external examiners is a useful way of enhancing the validity of assessments, and should be implemented more generally.

Recommendations regarding further research or a follow-up PLA

- Create a shared platform for developing a common language of definitions and descriptions for the use and implementation of learning outcomes. Such a platform can also be a space to continue the exchange of practices, pitfalls and lessons learnt.
- It is necessary to move on in the discussion on learning outcomes and focus more on assessing and demonstrating achieved learning outcomes. Further research is needed to make an inventory of good practices of assessment and demonstration of achieved learning outcomes.

Anchor points for achieved learning outcomes in the EHEA

The use of learning outcomes to describe the qualifications of study programmes has been a central concept in the Bologna project from the start. This does not mean that the concept has been developed to its full potential. The Bucharest Communiqué of 2012 mentions explicitly that good understanding of learning outcomes and the integration of these in quality assurance needs further enhancement and training:

"To consolidate the EHEA, meaningful implementation of **learning outcomes** is needed. The development, understanding and practical use of learning outcomes is crucial to the success of ECTS, the Diploma Supplement, recognition, qualifications frameworks and quality assurance–all of which are interdependent." (Bucharest 2012:3)

The upgrade of the European Standards and Guidelines agreed upon in Yerevan in 2015 emphasizes this once more. Standard 1.2 is quite explicit in this:

Standard 1.2 Design and approval of programmes :

"(…) The programmes should be designed so that they meet the objectives set for them, including the intended learning outcomes.

The qualification resulting from a programme should be clearly specified and communicated, and refer to the correct level of the national qualifications framework for higher education and, consequently, to the Framework for Qualifications of the European Higher Education Area." (ESG 2015:9)

Another important statement is included in the guidelines on standard 1.3, as it adds the importance of assessment and demonstration of achieved learning outcomes:

"(…) Considering the importance of assessment for the students' progression and their future careers, quality assurance processes for assessment take into account the following: (…)

The assessment allows students to demonstrate the extent to which the intended learning outcomes have been achieved. (…)" (ESG 2015:9-10)

These statements form the rationale to focus in this document on the assessment and demonstration of achieved learning outcomes.

The fact that achieved learning outcomes are mentioned in standard 1.3 is not surprising, since this standard deals with student-centred teaching, learning and assessment, and thus focuses on the learning process and its achievements by the student him/herself. The explicit mention of the achievement of learning outcomes in the ESG, and thereby in frameworks for internal and external quality assurance, has boosted the formal acceptance of the concept, which is an important step.

The ultimate goal, however, is that student-centred learning is embraced as a living principle by all stakeholders in the higher education community. It is only then that the benefits of the approach can be fully reaped.

Placing learning outcomes at the heart of higher education involves all aspects of the teaching and learning process and the quality that is aimed for and achieved. From this perspective, the assessment and demonstration of achieved learning outcomes is only one element in the larger process which starts with formulating intended learning outcomes as learning goals, accommodating the responsibility of students for their own learning, and developing appropriate forms of teaching and learning that suit the learning outcomes. Curricula and study programmes thereby form a bridge to the achievement of the intended outcomes. A system of assessment that is fully aligned with the student-centred approach and allows students to demonstrate the achievement of the intended learning outcomes in a valid and reliable manner, is the capstone in this educational concept.

> "One of the great advantages of learning outcomes is that they are clear statements of what the student is expected to achieve and how he or she is expected to demonstrate that achievement. Thus, learning outcomes are more precise, easier to compose and far clearer than objectives." Kennedy (2006:22-23)

Assessment and demonstration of achieved learning outcomes may be just one aspect of student-centred learning, but is of special importance as it provides the interface between study programmes and larger society. The achievement of learning outcomes is what students take with them as they enter the labour market and develop themselves through in their work and in lifelong learning. It should therefore be transparent and transferable to society. This is also where intended and achieved learning outcomes meet. They form two sides of the same coin and form a meeting place for many different functions and expectations connected with higher education, within institutions, in the dialogue with students and stakeholders in society.
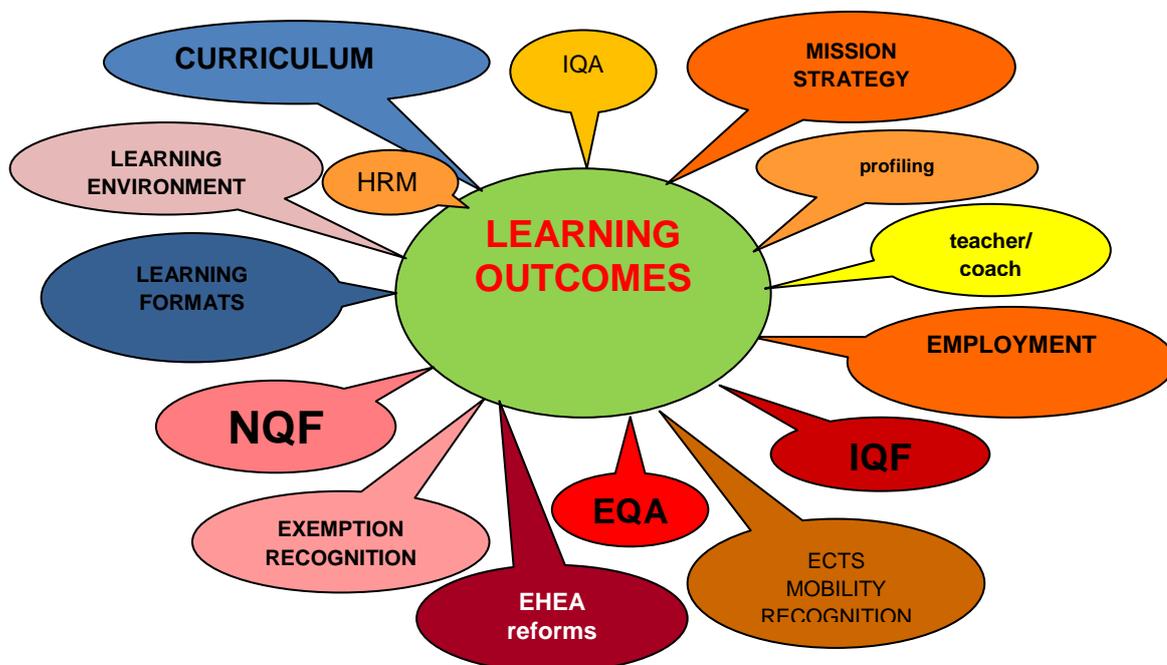
Source: presentation "Concluding Reflections on Guidelines for the use of (Achieved) Learning Outcomes", Lucien Bollaert, NVAO, 30 October 2015

Learning outcomes and quality assurance

The central place of learning outcomes in the Bologna project has as its consequence that this approach to learning should be integrated in systems of internal and external quality assurance. Making learning outcomes a true meeting place means that quality assurance should not take an overly directive role. The stakeholders in higher education: students, teachers, employers, institutions, should initiate the innovation that is needed to implement learning outcomes and a proper handling of achieved learning outcomes. Quality assurance should follow the developments in the design of curricula, the development of new ways of teaching and assessment, and the involvement of students and employers and make sure that these become firmly established in higher education. It should also set and maintain standards so that the overall level of quality goes up.

Guidelines as provided in the ESG should be taken in the sense that they explain why certain standards are adopted and why they are important. Guidelines describe possible implementations of standards, and set out good practices. This is what is meant in the explanation of these concepts in the 2015 revision of ESG (p.9). In the context of the assessment of achieved learning outcomes it should be emphasized that the good practices are not there for the benefit of quality assurance as the text of the ESG states, but primarily for those who create quality and only secondarily for the actors involved in quality assurance.

The presentations and comments from the participants at the PLA made it clear that professionals in higher education appreciate their autonomy and their role as initiators of innovation in the process of implementing learning outcomes. It was emphasized many times that 'guidelines' that constrain or strait jacket this autonomy might work counterproductive. Enforcing the use of learning outcomes in a rigid manner through quality assurance without proper attention for the professional's insights and experiences has not been beneficiary to the implementation of the concept.

Learning outcomes are accepted because of evident benefits to all stakeholders. Quality assurance has an important role to play in supporting the use of learning outcomes by establishing guidelines and good practices for the design of programmes and methods of assessment, as well as for aligning teaching with the learning outcomes and facilitating cyclical improvement. Providing insight in the quality of programmes supports the demonstration of achieved learning outcomes as it assures the validity of the awarded degrees. Benchmarking learning outcomes with national and international qualification frameworks is effective in connecting learning outcomes with the demands in society. Further benefits include the improvement of student mobility and the establishment of a 'brand' of higher education that is recognized in society as well as abroad.

The contributors to the PLA also highlighted scenarios where the implementation of learning outcomes on education and quality assurance may not have produced the intended effects, or was even counterproductive. Examples have been presented, such as the tendency to standardize, which may endanger the desired diversity of higher education. In quality assurance systems that do not review at programme level, the use of learning outcomes is not easily monitored. Other examples relate to the tendency towards an increasing formalization of the process of the development of education, through many 'paper' layers of documentation and reformulation of outcomes with diminishing significance.

Learning outcomes do not always cover what teachers or students perceive as the 'essence' of a study programme, that part that is in between the modules and often has to do with building personality and gaining experiences outside of the comfort zone of regulated learning.

The discussion on the added benefit of learning outcomes and the role of quality assurance brings up important questions. The pressure of many different changes and developments is felt throughout society and not in the least in the field of education. The context of the Bologna project has set an agenda for moving towards a common goal in higher education, trying to avoid pitfalls such as the suppression of the diversity of education, or an increasing formalization in the process of educational development and reviewing in quality assurance.

Even without the introduction of student-centred learning, there has been growing pressure on higher education to account for their output to society in a quantitative and qualitative sense.

Initiatives such as the PLA bring together stakeholders and discuss manners in which learning outcomes can be used as a tool that can facilitate the integration of new societal demands with the development and improvement of the quality of education. The PLA also brought to light good practices in which the concepts of student-centred learning were implemented in practical manners to improve the formulation of learning objectives or the assessment system.

Cases presented at the PLA showed how implementing learning outcomes proved very effective in restructuring curricula using EQF-levels as a corner stone for institutional quality assurance approaches (Garré, Odisee) as well as for implementing a quality-assurance driven learning outcome assessment process (Vettori, Vienna University of Economics and Business).

Common element in these presentations was that the tasks that were confronted were complex but by cutting down the number of concepts and variables involved, by 'keeping it simple', learning outcomes proved a valid and effective framework. Even in these cases, pitfalls are present and were mentioned:

− does quality assurance based on learning outcomes leave enough room for innovation?
− how can institutions and quality assurance agencies find the right balance between autonomy and regulation?
− are students interested or involved in the process of implementing learning outcomes?
− what if the pressure from external quality assurance is gone, will innovation last?
− is the terminology that is used in the process clear for all those involved, is there a common language?

Building bridges: putting into practice learning outcomes in diverse contexts

"The EHEA is characterised by its diversity of political systems, higher education systems, socio-cultural and educational traditions, languages, aspirations and expectations. This makes a single monolithic approach to quality and quality assurance in higher education inappropriate." (ESG 2015:8)

The discussions at the PLA made it evident that any guideline on assessment and demonstration of learning outcomes should take the perspective of the creation of quality as its point of departure and not that of quality assurance in formal systems and standards. Quality in education is created in its specific context, be it an institution, programme or classroom, which means that the process will differ for each context and that the implementation of learning outcomes will vary, depending on the context in which this takes place.

As practices will differ in each context, good practices that work in one context, may therefore not always be effective or realistic in other contexts. Still, communication and exchange of experience and practices is needed to build bridges between the various contexts in the EHEA and make progress in implementing the Bologna reforms and student-centred learning.

The PLA brought together representatives from 13 different countries and just as many systems of higher education. These differences concern the institutional structures and the extent to which quality assurance emphasises or formalises the use of learning outcomes, either intended or achieved. On one side of the spectrum there is the Swedish system which, since its revision of the evaluation of first and second-cycle programmes in 2010, focused on student attainment of intended learning outcomes specified in the national qualification descriptors.

The cycle of reviews from 2011-2014 almost exclusively focused on output, and very little on pre-requisites and processes. On the other side, the Austrian system of accreditation considers learning outcomes in the review of new programmes, but the check whether intended outcomes are achieved is not part of the framework for accreditations. These reviews focus more on internal quality management and the way learning outcomes are made explicit in programmes.

Another case is the UK, which has largely moved towards institutional accreditation, which places the responsibility for making sure that learning outcomes are implemented and achievement is assessed and demonstrated on the institutions.

Countries where achieved learning outcomes have been part of the frameworks of external quality assurance include the Netherlands and Flanders. The experience with this element in various cycles has been that it may raise debates on the autonomy of institutions when external reviewers evaluate final projects or theses of individual students, especially when they criticize the grades given by institutional or external examiners connected to the programme.

Nevertheless, this practice has been effective in raising the level of achieved learning outcomes in certain sectors, raising public confidence in the value of awarded degrees.

In the Dutch system, the focus on the level and the achievement of learning outcomes provided an incentive to programmes to improve the level of knowledge and skill, and improve the systems of assessment. Exam committees became more independent, assessments were critically evaluated by experts and teachers were trained in methods of assessment.

In most countries, the evaluation in external quality assurance is at meta-level and reviews the system of assessment, rather than that it includes the evaluation of individual projects and theses. Other major areas of difference in the implementation of the assessment of achieved learning outcomes include:
− the level at which knowledge, skills (and attitudes or behaviour) are integrated in the assessment;
− the use of internal & external evaluators;
− the level of formalization of the assessment and the inclusion in internal quality assurance.

A basic approach

The PLA convincingly showed that the goal of student-centred learning, teaching and assessment is firmly set in ESG and other frameworks, but that the pace and the trajectories to reach this will differ. These three components of education should be taken as a whole and developed in a coherent manner. The assessment and demonstration is generally seen as the area that needs special attention, as its alignment with student-centred learning has not kept pace with that of the use of intended learning outcomes. The diversity of the different social and cultural contexts is an important element in this respect.

Changing curriculum- or knowledge oriented systems of assessment that tie into structures of professional qualifications and licenses makes it hard to 'flip' the perspective to the student and his or her achievement of learning outcomes. Transferring the intended qualifications of students to a diverse and increasingly globalizing labour market and workplace is key to the success of the Bologna reforms, though. The diversity of the higher education area should therefore not stop us from building bridges to cross the differences and finding ways to improve the coherence of the EHEA.

In order to find, within each context, the space to manoeuvre and move forward, it is important that teachers and those involved in quality assurance keep the process of developing education and quality in motion. This is especially important for the difficult field of developing student-centred approaches to assessment. Avoiding static application of standards, leaving room for experiment, creativity and failure, and co-creation with all stakeholders – students and employers – is of critical importance.

In this respect, quality improvement is truly a cyclical process without beginning or end. Progress can be made on the basis of experiences that are shared and exchanged, even over the borders of educational systems. It is important to keep in mind that, in every context or educational structure, the same set of relationships is involved in formulating intended learning outcomes, in the assessment and demonstration of achieved learning outcomes and in quality assurance. This set can be represented in the form of the following triangles:
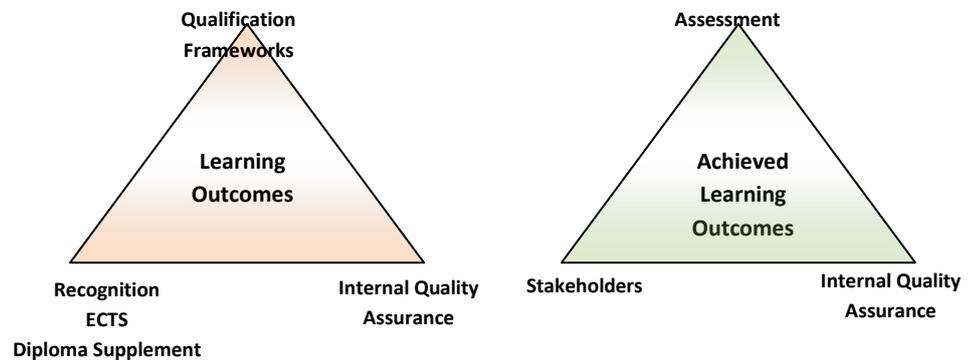
Source: presentation "Introduction to a possible outline of guidelines", Mark Frederiks, NVAO, 30 October 2015

The PLA highlighted interesting examples of good practices in Dutch higher education, which used these basic relationships as point of departure, such as the alignment of verification and testing of learning outcomes in International Business and Management Studies programmes in Dutch higher education, the Mastermind project at the VU University Amsterdam which aims to find a competence based model for assessing candidates for admission to master's programmes, and the AuCom model for determining the level of modules and programmes, using references to benchmark frameworks and professional practices. These are discussed in the third part of this document.

Finding a common language

Although the PLA produced good examples and practices that can be transferred to other contexts, the problem of the diversity remains important. One thing that became apparent during the event is the will to communicate from the various backgrounds and contexts and develop a common discourse. This includes both professionals from institutions and those involved in quality assurance agencies. Providing opportunities to meet and exchange experiences with the various aspects of student-centred learning was seen as the major contribution of the PLA, and also a thing that should not stop there.

Documents like the present one can be used to provide a 'conceptual map' of the many details and elements of the development of intended and achieved learning outcomes and develop the desired common language , which will help all stakeholders to communicate and learn from each other.

Although the idiom of student-centred learning is uniform at the level of the standards and guidelines, this uniformity quickly falls apart in the implementation and in discussions in policy statements or definitions used in the various projects, such as the Tuning project. The differences are confusing for the specialists or policymakers, but even more so for education professional who have to put the principles into practice. Such confusion can easily diminish the readiness of teachers and support staff to go through the process of implementing learning outcomes. Definitions of learning outcomes that exist in the EHEA vary in the level of abstraction and in their adherence to concepts, such as competences, that learning outcomes were supposed to replace.

In his presentation, Andy Gibbs highlighted the different approaches that are behind authoritative definitions of learning outcomes by the ECTS User's Guide and in a publication from the Tuning project:

- A learning outcome is a measurable result of a learning experience which allows us to ascertain to which extent/level/standard a competence has been formed or enhanced.
  Developing the key competences is the main objective of a programme.

  These competences are called Programme Competences (PCs) because they are the cornerstones of a programme. Their achievement is verified through references to Programme Learning Outcomes (PLOs). (Lokhof and Wegewijs 2010:21)

- Learning outcomes are statements of what a student is expected to know, understand and/or be able to demonstrate after completion of a process of learning

  It is possible to write Programme Learning Outcomes without any reference to Programme Competences. (ECTS Users' Guide 2005, 2009).

Such controversies mark the lively debate on education, but it should be encouraged to develop a shared discourse on student-centred learning and teaching. A transparent set of definitions and terms is very important in that respect. For these purposes, the definitions in the ECTS Guide and in the work of Declan Kennedy (2006) have the benefit of clarity and express the intended goal behind the use of learning outcomes.

Foregrounding terms such as 'competences' or 'learning objectives' which have a history of teacher- or curriculum-centred learning tends to mask the direction of the desired innovation. Whether and how learning outcomes are formulated and assessed as competences which integrate knowledge, skills and attitudes in a (specific) context is a strategic choice that belongs to the autonomy of the HEI.

Instead of starting yet another semantic discussion on definitions though, the following descriptions were recognized by a large number of attendants at the PLA:

A learning outcome is what a learner is supposed to know and be able to do after a successful study or learning process.

A competence/y is an ability to integrate knowledge, skills and attitudes to be successful in a certain context.

Both at module level, as well as at the level of programmes, the vocabulary of learning outcomes as laid down by Kennedy provides an accessible idiom for a common language. His publication on formulating learning outcomes, using the various levels of Bloom's taxonomy, and on the principles of assessment of achieved learning outcomes provides both a theoretical and practical point of departure. They deserve being mentioned here as a true 'guideline'.

1. It is all about learning outcomes: consider intended and achieved learning outcomes as two sides of the same coin

In a student-centred approach at learning and teaching, assessment shapes the curriculum: the tail wags the dog. Intended learning outcomes should be formulated in such a manner that they can be assessed in a student-centred manner. Their focus should be on what students are expected to be able to demonstrate upon completion of a module or programme. Defining learning outcomes is still an 'art', but should not be overcomplicated by discussions on semantics or methodology. The motivation and interest of teachers and students will get lost when formulating learning outcomes becomes too much a semantic exercise. Meaning should prevail at any moment. There are a number of guides and manuals that can help, especially Kennedy (2006); Aerden (2015), the ECA publication on learning outcomes and quality assurance (2013), the Tuning Guide, although the use of terminology may differ.

Good practices and lessons learnt

1.1 A pragmatic and holistic approach

A pragmatic and holistic approach that encompasses the most relevant concepts was presented at the PLA by Andy Gibbs on the basis of his experiences at the Glasgow Caledonian University (UK). His advice is to "keep things simple": integrating learning outcomes in a study programme should be done in the context of regular development and improvement of education. The process should be divided up into steps that are recognized as necessary and natural by all stakeholders involved.

Formulated learning outcomes should cover what matters in terms of achievements that can be assessed and demonstrated by students in the programme and in practice. What cannot be defined as a learning outcome can stay undefined as such. It can be left to students to define the 'immaterial' learning outcomes in terms that are relevant to themselves, letting them choose the right form of assessment.

When defining learning outcomes, one should ask the following questions:
- Does each outcome start with an active verb?
- Have I used terms like *know*, *understand*, *learn*, *be familiar with*, *be exposed to*, *be acquainted with*, *be aware of* and *appreciate*?
- Do the learning outcomes range across the levels of Bloom's Taxonomy?
- Are they measurable (able to be assessed) ?
- Are they student-focused rather than teacher focused?

It should be noted that also other taxonomies or models for defining different aspects of learning outcomes were presented, such as De Block's taxonomy or the Mastermind Programme of the VU University Amsterdam and the AuCom model (see below 2.2 and 2.3). In any case, alignment of all outcomes, teaching and assessment in a student-centred approach is crucial:

Alignment within a Given Course
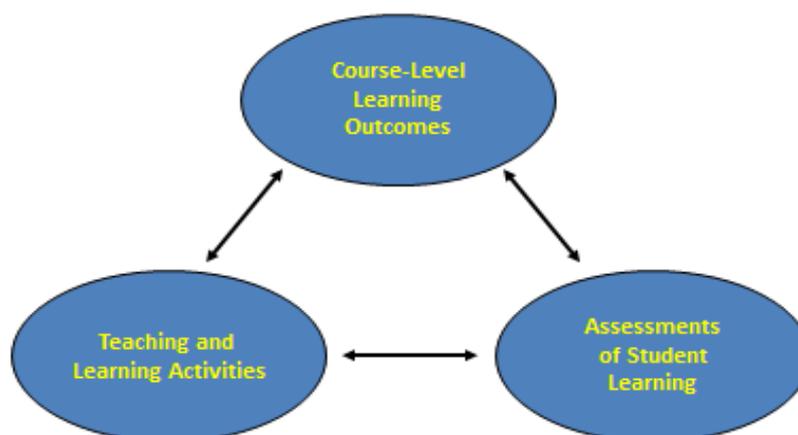
Source: presentation "Peer Learning Event on Assessment and Demonstration of Achieved Learning Outcomes", Andy Gibbs, Glasgow Caledonian University, 30 October 2015

1.2 Assessment of Achieved Learning Outcomes between the poles of rigour and relevance

A good practice of the implementation of a quality-assurance driven learning outcome assessment process at an Austrian public university was presented by Oliver Vettori (Vienna University of Economics and Business). He showed the various dilemmas and choices that came up in this process. One the one hand, the assessment system needs to be methodologically sound, but also feasible. It needs to provide detailed information on the performance of individual learners, but at the same time feed into institutional processes of curriculum development and stakeholder information. In simple words: the measurements should be accurate but also create meaning - demanding a tightrope walk between rigour and relevance.

Vettori showed how these demands on the system led to choices and priorities in the various steps and phases in the implementation. An important step was the introduction of a new shared vocabulary which reflects the choice for learning outcomes driven assessment. The decision to start with a reduced number of learning outcomes at programme level instead of working with filled-in lists allowed programme managers to focus on what they thought was important and achievable. Another choice was to be not too exact in the formulation of learning outcomes in qualification profiles. It also proved important to take the burden of the administrative handling away from the teaching faculty. The connection with quality assurance benefitted from focusing the discussion on results and the impact of follow up interventions.

This implementation did not take way all problems. It proved hard to involve students in the process, the reduced qualification profiles proved hard to extend; there is a risk of introducing a new routine that adds no new meaning; it is hard to keep the process going when the external driver in the form of an accreditation review is gone.

1.3. Developing a valid system of examination

A good practice for this approach can be found in the Dutch protocol for the final examination phase in higher professional education and the self-evaluation tool that accompanies it. Giving teachers insight in the strengths and weaknesses of their assessment system leads to improvement. The examiners should be able to relate the assessment methods and the criteria to the practice of the teaching, understand the methods and be able to use and improve them effectively.

Faced with a crisis of public confidence in the levels achieved in professional bachelor's programmes, the sector initiated a project aimed at defining a set of valid and practical principles for the assessment of the final qualifications of students in the last phase of their study programme. The project takes into account the large differences in the sector of higher professional education and in the nature of assignments and products that are used to assess the achievement of students. It resulted in a protocol of 12 principles for: (i) the final qualifications, (ii) the professional assignments to be used, (iii) the system of assessment to be put in place, (iv) the institutional preconditions that should be met, (v) accountability, and (vi) the quality improvement of the system.

The protocol was presented to the PLA by prof. Daan Andriessen, supervisor of the project, using a self-evaluation tool consisting of 12 questions, relevant to the 12 principles, that every programme supervisor should be able to answer on the state of the final examination phase in his or her programme. These are the questions in the tool:

Learning outcomes
1. Do the learning outcomes of the programme reflect both the requirements from the professional field as well as the demands on Bachelor level?
2. Do the learning outcomes contain requirements with respect to research competence?
3. Does the final examination phase assess all learning outcomes at the required level and is it clear which learning outcome is assessed by which part of the examination phase?

Professional assignments
4. Are the professional assignments suitable for the assessment of the learning outcome?
5. Does the staff of the programme monitor the required degree of complexity of the assignments and the degree of independence of the students?

Assessment
6. Does the management of the programme ensure that each examiner possesses the competence required to do a proper assessment?
7. Do the assessment models guarantee a valid, reliable and transparent assessment and are the models workable for examiners?
8. Are the means in place to ensure a common interpretation of the evaluation models by the examiners?

9. Is the examination process transparent and workable and does it promote a reliable assessment?

Preconditions
10. Does the institution provide all necessary conditions for proper execution of the examination phase?

Accountability and quality improvement
11. Has a process for external quality assurance been put in place?
12. Does the institution provide external review committees with all evidence gathered in the examination on student competence?

The discussion of the questions at the PLA brought to light a few points of attention with regard to these questions:

− the examination phase should not be the only moment in the study programme where the achievement of learning outcomes is assessed;
− are the terms used in the protocol and the list of questions transferable to other systems; do they intend the same meaning?
− how context-specific is the protocol? Is it specific for a certain type of assessment? Does it focus on the professional programmes? How is research taken into account?

Pitfalls and obstacles

In general, the following pitfalls and obstacles should be mentioned with regard to the formulation of learning outcomes and the assessment of their achievement:

− It is important to calibrate the difference between achieved learning outcomes at the levels of 'short cycle', 'bachelor', and 'master'. There is the danger to describe learning outcomes of lower levels as 'light' versions of those at a higher level. Described learning outcomes at each level on the basis of the specific orientation and societal relevance of programmes at that level.
− The more professionally oriented a programme is, the more detailed and specific the learning outcomes tend to be. This may enhance recognition by the professional field, but does it allow for enough freedom for the teachers and students and not stand in the way of innovation?
− Generic, transversal competences are often overly generic, and lack a connection with sector-specific competences. This makes them hard to transfer. This often regards academic programmes, some of which train for transferable competences without them being defined as such.
− 21-st century skills often refer to competences that fall in between the hard categories of domainspecific learning outcomes. Benchmarking the outcomes with frameworks should also focus on attitudes, character and personality. 21st-century education should focus on the integration of knowledge and skills from the traditional domains and orientate learning outcomes in that direction.

2. Use learning outcomes as a tool for developing and improving education, not as a goal in itself

Learning outcomes are a better alternative for defining final qualifications of study programmes and should provide a meeting place for all expectations and functionalities connected with higher education. Involving students, employers, and other stakeholders in defining learning outcomes and of assessment of their achievement in a process of practical reflection and co-creation makes them co-responsible for the quality of the learning process. When applied in a practical and insightful manner, integrating all stakeholders in the learning process, they can be at the centre of the quality of teaching and learning and significantly add value which should become visible in the achieved earning outcomes.

Achieved learning outcomes are an important tool for the development of teaching and assessment. They should not become a bureaucratic item on a list, but used as a living tool in the classroom and in developing assessment. Quality assurance should facilitate and stimulate that outcomes and qualifications are a 'living' element. It should be aware of the risk of formalising situations and standing in the way of the use of learning outcomes as a tool in a dynamic process of improvement.

Good practices and lessons learnt

2.1. The alignment of verification and testing of learning outcomes in International Business and Management Studies (IBMS) programmes in Dutch professional education

In a revision of the National Framework for IBMS programmes, the qualifications of the programmes are being recast as learning outcomes. The aim is to give students better insight in their own capacities and to facilitate the constructive alignment of intended learning outcomes, teaching and learning and assessment. The process involves IBMS students and alumni, discipline experts and international partners.

Perceived benefits of the project are the following:

– the constructive alignment takes account of the workplace as well;
– the work place is also educated, by using understandable and more universal terms;
– graduates understand better what they are capable of;
– students are more motivated to learn as they recognize the outcomes;
– creating learning lines and developing assessment is facilitated better due to the higher level of detail of the learning outcomes.

The project also mentions some pitfalls:

– one must be careful not to become too prescriptive and leave room for institutions to define their own learning outcomes for specializations;
– some learning outcomes may become redundant more quickly; it requires adapting them regularly.

2.2 The Mastermind Europe project at the VU University Amsterdam

The Mastermind project aims to develop tools and experience for the admission of Master's students based on assessment of competencies instead of recognition of previous degrees (https://vu.nl/en/about-vu-amsterdam/mission-and-profile/mastermind-europe/index.asp).

Diplomas are not always the most transparent way to assess applicants for admission to a master's programme. Therefore the Mastermind programme tries to develop a competence-based approach. Key-questions for admission are:

- What do applicants have to be good at?
- How good do they need to be at it?
- How do you know they are?
- How do you organise transparent answers?

These questions apply to the following three domains: Academic, Substance and Personal.

The project aims to look at incorporating various established models for measuring competences in these domains and develop a coherent admission framework of admission criteria and the tools needed for assessing candidates. These criteria should be coherent with the learning outcomes and be reflected in the curriculum.

The project mentions also pitfalls, in the form of legal restrictions, regulations at faculty or institutional level. In many cases it requires and open mind to find solutions within the existing regulations.

2.3 The AuCom Model at Saxion University of Applied Sciences

The AuCom model provides a simple tool for researching, defining and demonstrating achieved learning outcomes in higher professional education programmes.

The AuCom model proposes a practical scheme that can be applied by teachers and curriculum developers to assess whether a module or programme conforms to the bachelor level in the context of a University of Applied Sciences.

It starts by analysing which factors or criteria determine the level of competence using established frameworks such as the Dublin Descriptors, the European Qualification Framework, as well as professional practices and the experience of teachers.

If, for instance complexity and autonomy are identified as key factors, these can be placed in the following matrix:

	C	D	E
<---Autonomy---	B	C	D
	A	B	C
	---Complexity--->		

Source: presentation "The AuCom Model", Petra Bulthuis and Anke Thijsen, Saxion, 30 October 2015

The model can be used to describe competencies in more detail or define learning outcomes, to determine the level of practical assignments (internships), develop assignments of a specific level, and to define the criteria for assessing the performance of students.

A pitfall might be the expectation that the model provides a definitive answer on what a specific level should be. It is effective in providing a common language to discuss and think about levels among peers.

3. Link learning outcomes to national and international frameworks

Learning outcomes should be coherent with national qualification frameworks in various dimensions. Course learning outcomes should be linked with programme learning outcomes, which should in turn be benchmarked against national qualification frameworks in a given domain. These frameworks should communicate with formal or professional standards at European and global level.

Learning outcomes provide a better way to match and benchmark final qualifications with the qualification frameworks than the descriptions based on competencies, due to the international differences in the definition of the word 'competency'. Focusing on the results of teaching and learning by students as they present themselves in achieved learning outcomes is more indicative of what students will be able to do outside the classroom and in work situations.

Mobility in education and transfer of achieved learning outcomes across regional or national borders is facilitated much better by using learning outcomes that are linked to qualification frameworks. The aim of this is to arrive at achieved learning outcomes that can fulfil their important role in communicating the result of learning between sending and receiving higher education institutions, to the labour market and to larger society.

Matching and benchmarking against domain-related or national qualification frameworks should not stifle innovation, though. Both frameworks and the learning outcomes should be updated regularly. Obsolete descriptions or competences should be discarded, and new skills and qualification added regularly.

Good practices and lessons learnt

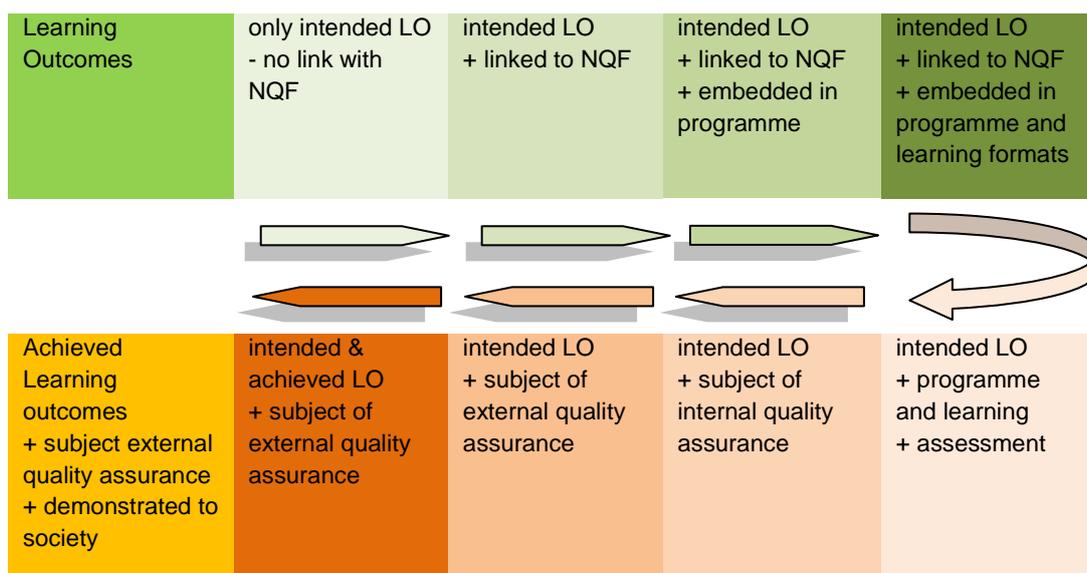**3.1 Review of student's independent projects in the Swedish system of accreditation**

In the Swedish cycle of programme reviews of 2011-2014, student's independent projects were used as the main indicator for the extent to which students achieve the intended learning outcomes as laid down in the national qualification descriptors. For each study programme, a sample of 5-24 projects was selected and reviewed. The purpose was explicitly not to review the grades of the individual projects, but to measure the aggregate goal attainment of the study programmes.

Although the emphasis on output and the focus on the student's project have been criticized, the evaluation system had a good effect on internal quality assurance systems in the institutions. It also lead to an increased awareness of and focus on the national qualification descriptions.

4. Use quality assurance to stimulate and improve the development of learning outcomes, not as an instrument of control

Intended learning outcomes should be linked to the levels of the national qualification frameworks, and assessment of achieved learning outcomes should follow this orientation. Tools for developing this are level descriptors, laid down in the Dublin Descriptors, the ECTS manual (2015), the Tuning documents for the various disciplines and national and international qualification frameworks.

The following figure describes the trajectory from intended learning outcomes, through its implementation in education and its benchmarking with qualification frameworks to a recognized achieved learning outcome that can be demonstrated and consolidated in internal and external quality assurance.

Learning Outcomes	only intended LO - no link with NQF	intended LO + linked to NQF	intended LO + linked to NQF + embedded in programme	intended LO + linked to NQF + embedded in programme and learning formats
Achieved Learning outcomes + subject external quality assurance + demonstrated to society	intended & achieved LO + subject of external quality assurance	intended LO + subject of external quality assurance	intended LO + subject of internal quality assurance	intended LO + programme and learning + assessment

Source: presentation "Concluding Reflections on Guidelines for the use of (Achieved) Learning Outcomes", Lucien Bollaert, NVAO, 30 October 2015

Good practices and lessons learnt

4.1 Restructuring curricula using EQF-levels as a corner stone for institutional quality assurance approaches

An example of the implementation in practice of the cycle described above is presented by Paul Garré of Odisee University College, Belgium. It demonstrates how the intended learning outcomes, expressed in a competence framework, are linked to the level 6 of the EQF. The process is embedded in the cycle of internal quality assurance.

The different parts of the process can be outlined as follows:

1. All programmes of the university college use the same competence framework, defining in rather general terms four categories of competence achievement (basic, growth, integration, expert). These categories relate to developing knowledge and skills, degrees of autonomy and responsibility, growing complexity and novelty of contextual elements. The third level (integration) corresponds with the attainment of EQF6.

2. Each programme has formulated domain specific key learning objectives, adjusted well to this third integrative level, and thus corresponding with EQF6. Furthermore, each course unit of the degree programme is related to one or more of these learning objectives (specifying the expected level of achievement).

3. Course units from the first year of the degree programme assess their students at level 1 or 2 of the competence framework. Exams and papers in the third (final) year will have to be assessed at the third level (EQF6). Students are informed about these expectations via online available ECTS information guides.

4. Once in a six yearly quality cycle, assessment procedures of all degree programmes and course units are thoroughly screened by a panel of external peers and representatives of the labour market. Teachers as well as programme responsibles receive feedback reports about the quality of their assessment practices (in terms of transparancy, relevance, level …). Moreover, these reports contain suggestions for improvement and appraise good practices. Again, the attainment of EQF6 is an explicit criterium for reflection and feedback during this peer review.

5. Additionally, after one and a half year of work experience, alumni receive a questionnaire containing ten crucial competences (selected from the intended learning outcomes). They are asked if these competences (in terms of intended learning outcomes) are still considered as relevant taking into account their first steps in the labour market and if so, whether they had achieved these competences at the expected level when entering their first job. This precious feedback is used to adapt the degree programmes and learning objectives where necessary.

Source: presentation "The European Qualification framework as a cornerstone for institutional quality assurance", Paul Garré, Odisee, 30 October 2015

4.2 Using the Ghent University Competence Model

Luc van der Poele (Ghent University) presented how the coherence of competences, as learning outcomes are called in this university, are monitored at the level of each course and each programme, by means of the Ghent University Competence Model. This model has been in place since 2005. With the suspension of programme accreditations the institution will have to rely more on the input from two-yearly questionnaires filled in by students. These evaluations drive the system of quality assurance. At Ghent University, programmes complement the university-wide monitoring instruments with more specific data gathering among students and alumni about the programme competences.

Since 2015, both programme and course competences are part of a new competence management system, where teaching staff indicate to which programme competences their courses contribute, with which course competences they work in order to achieve the programme goals, and which teaching techniques they use. Ultimately, the system also captures which programme competences are being evaluated and what evaluation techniques are being used. The system is still in pilot phase and some issues have yet to be resolved.

Pitfalls and obstacles

− Take care that a strong emphasis on learning outcomes as a driver for evaluations does not create 'collateral damage'. Some crucial elements of the learning process may remain unnoticed or do not get enough attention in evaluations. These can include conveying attitudes or character development in students.
− Quality assurance based on learning outcomes should leave enough room for innovation (see also recommendation 2). It is important that this question is addressed regularly by all stakeholders and by quality assurance agencies.

5. Follow through the concept of student-centred learning in the assessment and demonstration of achieved learning outcomes

In every aspect, the assessment and demonstration of achieved learning outcomes should be specifically aligned with the intended learning outcomes and be inspired by concept of student-centred learning. This means that assessment should test the learning by the student and not the teaching by the teacher. Assessment forms and criteria should be set up in consultation with students and stakeholders, although in the end, the teacher remains responsible for benchmarking with professional or academic standards.

The achieved learning outcomes should be oriented towards the future of students: their career in a work place or in continued education. This means that it should give the student insight in what he or she is capable of, as well as what an employer can expect. Therefore, the assessment should be relevant for the profession or academic domain and given insight into achievement of skills, knowledge and attitudes that relate to these fields.

If quality assurance involves intended learning outcomes, it should also take the assessment and demonstration of achieved learning outcomes into account.

5.1 Co-assessment by students and external examiners

A good practice that has been mentioned in discussions during the PLA is the co-assessment by students and external examiners. Involving students in setting up intended learning outcomes stimulates learning and motivates students. It is only natural that this should be followed up in setting up a system of assessment. Involving students and external examiners is a good way to do this, with respect for the various and different responsibilities of each of them.

5.2. Review of achieved learning outcomes in the Dutch and Flemish accreditation systems

A review of the achieved learning outcomes and the level of the graduates is part of the Dutch and Flemish accreditation systems. For the Dutch system the NVAO has developed a guideline for reviewers for this part of the procedure. It aims at taking a 'sample' of final projects or theses and compare these with achievements throughout the programme. The guidelines specify that the reviewer should take the intended learning outcomes of the programme as its point of departure: does the programme achieve the results it says it wants to achieve. The reviewers assess the outcomes but only from the perspective of the review, not as check of level of achievement of individual students. (https://www.nvao.net/system/files/procedures/NVAO%20Guidelines%20for%20the%20Assessment%20of%20Final%20Projects%20during%20External%20Assessments.pdf).

For the Flemish programme assessment, a guideline for the review of achieved learning outcomes is included in the review protocol that is maintained by VLUHR, the agency which carries out such assessments in Flanders.

Pitfalls and obstacles

– The development of student-centred assessment should follow the transition to student-centred learning and avoid teacher-oriented approaches which assess the curriculum rather than the learning by the students.
– There is much in a study programme that cannot be easily assessed, such as attitudes or personal development. Too much emphasis on competences or knowledge might stand in the way of properly assessing other aspects which have great value for students and for society.
– Structure the assessment system, and make sure that methods and criteria are valid. Do not underestimate the challenge this can pose.
– Using external examiners is a useful way of enhancing the validity of assessments, and should be implemented more generally.

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Programme of the Peer Learning Event

Thursday 29 October 2015

9.00-9.30   Reception of guests at the venue: the Ministry of Education, Culture and Science (OCW)

9.30-9.45   1. Welcome address by Lucien Bollaert, member of the board of the NVAO

9.45-10.30   2. General introduction to the topic of the event
Fiona Crozier, Head of International, QAA, UK
Dr. Kath Hodgson MBE, Director of Learning and Teaching Support, Leeds University, UK

3. Two Case Studies from HEI's related to the achievement of intended learning outcomes

2x20 min presentation and joint discussion of 20 minutes chaired by Fiona Crozier.

10.30-10.50   3.A   Dr. Daan Andriessen (HU University of Applied Sciences Utrecht)

Title: Developing a Protocol for the Assessment of Achieved

Learning Outcomes for the Netherlands Association of
Universities of Applied Sciences [Vereniging Hogescholen]

10.50-11.10   3.B Andy Gibbs BSC (Hons), MSC, PGCE, RN
Senior Lecturer International, School of Nursing and Community
Health, School of Health and Life Sciences, Glasgow Caledonian
University

Title: Differing Approaches to Programme Learning Outcomes

11.10-11.30   BREAK
11.30-11.50   3.C Questions and discussion on the two case studies
Do these produce a set of general principles or good practices?

Chair: Fiona Crozier

4. Two Case Studies from QA's; The use of achieved learning outcomes in
external quality assurance

2x20 min presentation and joint discussion of 20 minutes
Chaired by Kath Hodgson

11.50-12.10   4.A Karin Järplid Linde, Head of Department of Quality
Assurance – Swedish Higher Education Authority (UKÄ)

Title: External quality assurance of higher education in Sweden
12.10-12.30   4.B Dietlinde Kastelliz - Head of Department Audit & Consulting -
Agency for Quality Assurance and Accreditation Austria (AQ
Austria)
Title: Learning Outcomes as Subject Matter of External Quality
Assurance
12.30-12.50   4.C Questions and discussion on the two case studies
Do these produce a set of general principles or good practices?
Chair: Kath Hodgson
12.50-14.00   LUNCH
14.00-16.00

5. Breakouts in two rounds of three workshops: Presentations of
good practices and discussion
- Each workshop starts with short presentations of good
practices by participants (10-15 minutes) followed by discussion
or assignments

Desired outcomes:
- Could the presented practices be used by participants in their
own context?
- Are there useful alternatives not discussed before?
- Which elements constitute a good practice approach?

14.00-15.00   5.A Round 1 workshops
Workshop 1: Daan Andriessen (HU University of Applied
Science Utrecht)
- Pilot Guidelines from Dutch Universities of Applied Sciences

Workshop 2: Oliver Vettori (Vienna University of Economics and Business)
- Meaningful measurements? - Between the poles of rigor and relevance

Johan Alvfors   (Swedish National Union of Students)
- TBA

Workshop 3: Petra Bulthuis & Anke Thijssen (Saxion University of Applied Sciences)
- The AuCom Model - Guidelines for researching, defining and demonstrating achieved learning outcomes

15.00-15.20   BREAK
15.20-16.20   5.B Round 2 workshops

Workshop 1:   Paul Garré (Odisee)
- EQF-levels as a corner stone for institutional quality assurance approaches

Workshop 2:   Luc van de Poele (Ghent University)
- Systematic Data Gathering of Intended and Experienced Learning Goals

Workshop 3:   Kees Kouwenaar (VU Free University Amsterdam)
- Required learning achievements at the entrance of the master's programme: Mastermind Europe (www.mastermindeurope.eu)

Robert Coelen   (Stenden University of Applied Sciences)
- Workplace Acceptance of Program Learning Outcomes

16.20-17.00   6. Synthesis from the six groups, discussion chaired by Axel Aerden, NVAO
17.00-18.00   Free time
18.00-22.00   DINNER IN THE HAGUE

Friday 30th October
9.00-9.30   1. Opening by Mark Frederiks, NVAO International Affairs
Introduction to a possible outline of guidelines

9.30-10.00   2. Plenary discussion on an outline of guidelines

10.00-11.00   3. Breakout in two workgroups with a mix of HEI and QA representatives, chaired by Els van der Werf (Bologna expert, the Netherlands) and Oliver Vettori (Vienna University of Economics and Business)
- how can the presented and identified good practices be included in the guidelines?
- what elements can be used to formulate guidelines?
- how should they be described as guidelines?

11.00-11.20   BREAK

11.20-12.00   4. Plenary discussion and synthesis from workgroups on main conclusions regarding guidelines, chaired by Axel Aerden, NVAO

12.00- 12.30   5. Concluding talk by Lucien Bollaert, NVAO Board member Summing up the results

12.30- 13.30   End of the programme and LUNCH