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Quality Assurance and Learning Outcomes





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Lifelong Learning Programme

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Foreword

Learning outcomes are described as written statements of what a learner is expected to know, understand and/or be able to do at the end of a period of learning. At the beginning of the 90s, a EU pilot project on ECTS showed that study programmes were much easier to compare if they were described in terms of outcomes, instead of inputs. Learning outcomes started to gain importance at policy level and have consequently been supported by the development of national qualifications frameworks (Berlin Communiqué), the adoption of the ESG, the overarching outcomes-focused Qualifications Framework of the European Higher Education Area (QFEHEA) (Bergen Communiqué) and the European Qualifications Frameworks for Lifelong Learning. Today and in the near future student-centered learning and learning outcomes will be at the core of 'implementing Bologna'.

The importance of learning outcomes will increase for several reasons. Firstly, learning outcomes make qualifications more transparent for students. Then, the range of graduates is becoming wider and thanks to learning outcomes, employers may have a better understanding of the acquired knowledge, skills and competences in order to recruit the most suitable candidate. Learning outcomes benefit for quality assurance as they increase transparency and comparability between qualification standards. Learning outcomes are also valuable in terms of course design.

Naturally, objections have also been expressed with regard to student-centred learning and learning outcomes. They mainly question the focus on the individual learner, the difficulties in the formulation and implementation, and the inappropriate approach to higher education and academic study. The results of an ENQA survey on quality procedures of quality assurance agencies across Europe and beyond (2008) witnessed the education's shift from a teaching to a learning focus. At the same time this survey revealed that learning outcomes have only started to be addressed in external quality assurance at programme and institutional level procedures.

Since then, the methods of agencies take more and more into account learning outcomes.

This report presents four articles based on the ENQA workshop on the theme "Quality Assurance and Learning Outcomes" that was held in September 2010 in Vienna, Austria. The workshop addressed the question of what stakeholders expect from quality assurance agencies in connection with learning outcome orientation. The opportunities and challenges of the learning outcome orientation in the higher education sector were discussed from different perspectives. The workshop tried to define the role that learning outcomes should play in external quality assurance and how they can or should be considered within the scope of external quality assurance.

ACHIM Норвасн President European Association for Quality Assurance in Higher Education (ENQA)

Chapter 1:

On quality assurance and learning outcomes: Evaluating students' work within institutions or institutional work with students?

Lena Adamson, Royal Institute of Technology (KTH), Sweden

1.1 Introduction

In September 2009, a new model for quality assurance (QA) was presented to the Swedish Government by the National Agency for Higher Education (NAHE). The model was based on learning outcomes and will constitute the base for this article, although the model as such will not be implemented in Sweden.¹

The article is structured around the following topics: a) definitions and levels for learning outcomes; b) a brief introduction to the Swedish model; and c) suggested models and principles for evaluating intended and achieved learning outcomes. The idea is to bring the reader from a fundamental level of these issues all the way down to the "knitty gritty" implementation, and to raise some of the basic questions that arise in this process.

The definitions of learning outcomes used throughout the article are as follows: Intended Learning Outcomes (ILOs) are written statements of what the student is expected to know, understand and be able to do after completion of a learning unit. Achieved Learning Outcomes (ALOs) are what individual students have actually achieved in relation to the intended learning outcomes of this learning unit.

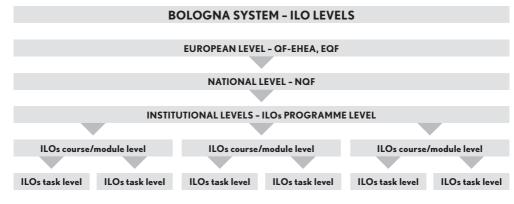


Figure 1

¹ The reason was, and still is, a stronger political aim than expressed in the initial assignment to NAHE that the national quality assurance system should only evaluate "the results of education" and therefore exclude all evaluation aspects of "educational planning and implementation" (p. 12, Focus on knowledge – quality in higher education Government Bill 2009/10:139, adopted by the Swedish Riksdag.)

1.2 Levels of learning outcomes - the Bologna system

Learning outcomes can be formulated on different levels in the Bologna system, and in each discussion, it is important to know which one of these levels you are referring to. Further, the Bologna system is a holistic system where all levels need to be integrated.

The top level is the European level, the Qualifications Framework for the European Higher Education Area (QFEHEA). The next level is the national level where some countries have level descriptors in their higher education legislation and some do not. The following three levels "belong" to institutions and individual teachers; the programme level, the course/module level and the individual task level.

This level structure constitutes one of the cornerstones in the model presented to the Government, where level two (the national level) was used as frame of reference, against which level four (course/module level) of the programmes under evaluation was to be evaluated.

1.3 The proposed model - background

The reason for the Swedish Government to assign NAHE to develop a new model for quality assurance was the higher education sector's severe critique of the QA system in use. The main critique concerned the lack of transparency and alignment with the Bologna process. The Government expressed this in the assignment to NAHE as the need for a new QA system to be "more focused on results".

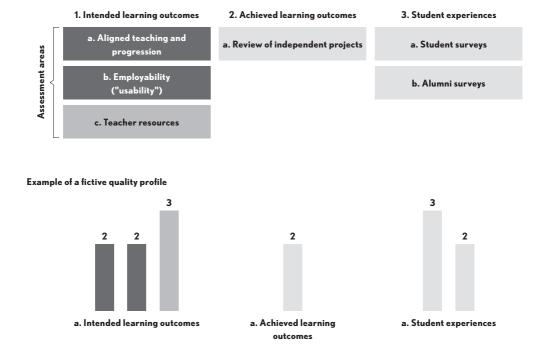
The discussion therefore started with defining what constitutes educational results. A group of vice chancellors, the chair of the Swedish Student Union and representatives from NAHE agreed that the results of higher education (HE), and indeed of any education, must concern what students have achieved after the completion of their studies. From that, the definition of quality followed easily; quality in Swedish HE would be that students achieve the ILOs, as expressed in the qualification descriptors (i.e., level two) in the Higher Education Ordinance. In line with that, the *basic question* the new QA model had to answer simply became: "Do programmes ensure that students achieve these learning outcomes?"

The model was then composed by NAHE, jointly with vice chancellors and their quality executives during a series of hearings. Key issues were: transparency and predictability, that it should be based on research and experience in *both* evaluation *and* teaching and learning processes, and finally, on a structural level, supporting the regular teaching activities and their planning in faculties. This would make the system sustainable and balance the needs for both accountability and improvement (cf. EUA Policy Statement, 2010).

The result was a *basic structure* of three quality indicators. The first, "Intended Learning Outcomes and Assessment", the second, "Achieved Learning Outcomes" and the third, "The Student Experience"². Each evaluated program would acquire a quality profile based on grading from 1 to 3 for each quality indicator.

Schematic presentation of the new system

QUALITY INDICATORS



This character shows an example of an imaginary quality profile. The numbers are credits from the assessment panel of the different basis of assessment from a fictive evaluation.

Figure 2

1.4 Assessing and evaluating³ learning outcomes - moving closer to reality

Difficulties in drawing conclusions about educational quality from a learning outcome perspective will increase the further away from the teaching and learning situation the evaluation is carried out. Between the choice of (quality) audits and evaluations of study programmes/subjects there is a need to choose the latter in order to tackle the issue at its source, *the teacher-student situation* where both ILOs and ALOs are applied in actual practice.

1.4.1 ASSESSING OR EVALUATING INTENDED LEARNING OUTCOMES AND ALIGNED TEACHING

Although being the cornerstone in the paradigm shift from teacher-driven to student-centred teaching and learning, the use of ILOs are not enough to ensure that these are turned into ALOs. In the proposed model, a special focus was therefore laid also on what is often labelled *aligned teaching/constructive alignment* (Biggs, 2003) or the learning chain (Gehmlich, 2010).

Aligned teaching is a way of tying together the different parts of the teaching and learning situation for the student in a logical and understandable order. The first step is to formulate ILOs and the next to find ways for making these visible, which is the

³ The term assess will be used here in relation to students/student work whereas evaluate is used in relation to QA.

design of relevant, fit-for-purpose assessment tasks. After that, decisions on grading system and assessment criteria need to be taken. Finally, the teaching and learning activities that will enable students to achieve this are designed.

When teaching is planned in this order, focus is shifted from teacher activities to student activities and from the content of the learning unit to the results intended. This is a necessary shift to make teaching and learning more student-centred and outcome-based. In relation to quality assurance, the same type of logic needs to be applied. Thus, the key components for good quality in relation to aligned teaching needs to be identified. In the proposed Swedish model, the key components for this part (Indicator 1a) were defined as *coverage*, *assessability*, *content and level* of ILOs and *relevance/fitness for purpose* of examination tasks.

The first component, *coverage*, concerns whether the ILOs laid down in the national qualification descriptors (or any other benchmark descriptors) are sufficiently covered by the combined ILOs of the programme/fields of study under evaluation.

In order for ILOs to be assessed, they must describe "visible use of knowledge", or competencies, meaning the unique combination of knowledge and skills. The learner "knows and understands" but is also "able to do" something with this knowledge. This constitutes the heart of the learning outcome paradigm, and therefore, assessability (i.e., the use of action verbs) must be seen as the main sign of quality in ILOs. These must also have the right content in relation to course objectives and be on the right academic level for the programme, not too high or low.

Third, assessments must be designed in a *relevant* manner in order to ensure that the learner achieves the intended learning outcomes. Thus, the evaluation of assessment/ examination tasks with regards to both *content* and *form* is necessary. Finally, since the existence of written grading criteria has been shown to enhance student learning (eg. Rust, Price, & O'Donovan, 2003; O'Donovan, Price & Rust, 2008), and is also one of the demands in the ESG, this was added as the last area for scrutiny.

It is important to note that no evaluation of the actual teaching and learning activities were included. The reason for this is that, apart from being unnecessarily intrusive on institutional autonomy, no overall evidence for any particular teaching methods has been provided so far, except for the general active learning strategy.

DRAFT CHECKLIST EVALUATION OF ILO AND ALIGNED TEACHING	GRADE 1	GRADE 2	GRADE 3
1. COVERAGE:			
Do ILO:s cover the descriptors for the exam?	No	To a certain extent	Yes
2. QUALITY OF ILOs			
Assessable - Do ILO:s describe the visible use of knowledge?	No	Reasonably	Yes
Do ILO:s clearly address the content of the study module?	No	To a certain extent	Yes
Do ILO:s have appropriate academic level for the study module?	No	Reasonable level	Yes
3. QUALITY OF ASSESSMENT RELEVANCE			
Relevant in accordance to content?			
Relevant in accordance to shape and form?	No	Reasonable	Yes
4. ASSESSMENT CRITERIA:			
Presented in advance?	No	_	Yes

Figure 3

1.4.2 ASSESSING OR EVALUATING ACHIEVED LEARNING OUTCOMES

The initial way of thinking about the methods for including ALOs in a QA system is, probably for most of us, to develop a model where subsets of student work are assessed in order to generate a general conclusion about the overall quality of the programme under evaluation.

With this strategy, a number of questions immediately arise: a) What is student work?; b) What learning outcomes are connected to them?; c) Which type of samples would be usable as generalisations about the quality of entire study programmes? And finally, a more fundamental question: d) Is there a problem that quality evaluators assess the same work which has already been assessed by teachers?

In the Swedish higher education system, the first questions are easy to answer. The only student work available on a system level, is the independent degree project every student have to do in order to receive her/his exam. All other assignments during the studies are legally owned by the students themselves. They are not registered as such in any administrative system, and hence, not available on a systematic basis on the national level. Regarding the ILOs, guidance for constructing these on both bachelor and master level, can be found in the Higher Education Act and the Higher Education Ordinance (level two). These would form a basis for more specified learning outcomes on programme level to be used in each particular programme evaluation.

The third question raised is more complicated. In order to draw statistically sound generalisations about the quality of individual programmes, random samples are necessary, which, in this context, often means very large samples. This constitutes a practical problem where the answer lies in the allowed cost of a QA system. In addition, it is important to mention that the degree project still represents only a very limited portion of the educational programme especially related to programme content.

The fourth question concerns a role mix-up between the institutions and their responsibilities of performing valid, reliable and fair assessment of student work on the one hand, while on the other hand, QA organisations base their evaluations on assessments of the same student work as a kind of "second opinion". This constitutes a fundamental problem in using ALOs in the QA process. Since role confusion in any system often leads to problems, this needs to be resolved. One solution is to twist the question to some degree. Instead of evaluating individual student work and then draw general conclusions about the quality of the programme, the evaluation can, instead, concern whether students with poor results on their degree projects (that is, not achieving the intended learning outcomes) are allowed to pass through the system or not. This solves a number of issues. First, and most important, although using ALOs, the evaluation now concerns the study programme, that is, the quality of work with students instead of the quality of student work. This is the very purpose of a QA system.

Second, the number of degree projects can be reduced, because the evaluation can end once an unsatisfactory, or possibly a few unsatisfactory project(s) have been observed⁴. There is simply no need to go through the remaining sample once these have been discovered. The entire sample needs to be examined only in the case where no unsatisfactory works are discovered.

Third, this method does not make *statistical generalisations*, but instead, base the evaluations on *empirical observations*: either none of the degree projects hold suboptimal standards that is, this programme really ensures that students who have

⁴ This number depends on how solid the system is

passed their exam have actually achieved the ILOs connected to the degree projects. Or, one project (or possibly a few) has actually passed the system even though it was not up to the required standards, which means that the quality of this programme cannot be fully trusted.

1.5 Conclusions

Learning outcomes builds on theories and research on active learning which we know enhances student learning (e.g. Hake, 1998; Prince, 2004), the main objective of all education. This is the natural starting point for quality assurance. It also gives evaluators, students and teachers a common language which facilitates the joint project of giving every student the optimal conditions for their studies.

First, in order to include learning outcomes (LOs), we suggest that one necessary condition is that the system focuses on programme/subject evaluations instead of audits. Further, concerning ILOs, there are few methodological problems, but there is a definite need to embed the evaluation of these into a somewhat wider context where we suggest aligned teaching.

In relation to including ALOs in a QA system however, there are both methodological and fundamental issues that need to be thought through. First, one has to be aware of that evaluating ALOs in a national system will most probably always cause workload problems. Further, on the more fundamental level, we have suggested that measures are taken in order to construct the system so as to ensure that the evaluation concerns not the quality in student work but the quality in teachers' and institutions' work with students. This is to ensure that the system evaluates educational quality and not student quality. It is well known that the socioeconomic status of students explains a large proportion of their results independently of educational quality.

Finally, there still exists a lack of knowledge in higher education about what learning outcomes really are and what they can accomplish. This probably explains the resistance still found. The challenge is now to reach out to teachers, students and evaluators with this knowledge to encourage the use of learning outcomes in a competent and creative manner. This can also become a powerful tool in striving to further develop the necessary interaction between research, education and innovation in the European Higher Education Area.

Literature

Biggs, J.B. (2003). *Teaching for Quality Learning at University*. Buckingham: Open University Press/Society for Research into Higher Education. (Second edition)

Fokus på kunskap – kvalitet I den högre utbildningen. Focus on Knowledge – Quality in Higher Education. Government Bill 2009/10:139.

ENQA Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG). http://www.enqa.eu/pubs_esg.lasso

EUA Policy Statement, on Quality and Quality Assurance in the European Higher Education Area, Palermo, 21 October 2010. Status: For adoption.

The Framework of Qualifications for the European Higher Education Area (QFEHEA) http://www.ond.vlaanderen.be/hogeronderwijs/bologna/documents/

Gehmlich, Volker (2010). Perspectives of Higher Education Institutions. "Quality Assurance and Learning Outcomes", European Association for Quality Assurance in Higher Education (ENQA). Vienna, Austria, September 2010. http://www.enqa.eu/eventitem.lasso?id=317&cont=pasteventDetail

Hake Richard R. (1998). Interactive-engagement versus traditional methods: A sixthousand-student survey of mechanics test data for introductory physics courses. *American Journal of Physics*, *Vol* 66, No. 1, January.

Kvalitetsutvärdering för lärande (*Quality for Learning*). Rapport 2009:25 R Högskoleverket. Swedish National Agency for Higher Education. www.hsv.se

O'Donovan, B., Price, M., Rust, C. (2008). Developing student understanding of assessment standards; a nested hierarchy of approaches. *Teaching in Higher Education*, 1470-1294, Vol13, Issue 2, 2008, Pages 205 – 217.

Prince, M. (2004). Does Active Learning Work? A Review of the Research. *Journal of Engineering Education*, Vol 93 (3), 223-231.

Price, M., O'Donovan, B., Rust, & C., Carrol J. (2008). Assessment Standards: A Manifesto for Change. *The Brookes eJournal of Learning and Teaching*, Vol 2, issue 3.

Rust, C., Price, M., & O'Donovan, B. (2003) Improving Students' Learning by Developing Their Understanding of Assessment Criteria and Processes. Assessment and Evaluation in Higher Education, Vol 28, No. 2.

Chapter 2:

Learning outcomes in external quality assurance: The case of Spain

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2.1 Introduction

At this moment, there are 78 universities (of which 50 public and 28 private) with a total of 1.600.000 students in Spain. While higher education is regulated by national authorities (namely the Ministry of Education), the funding of public universities is regionally based, and universities autonomous under the Spanish Constitution. The last reforms (Royal Decrees 1393/2007 and 861/2010) remove the old national degrees catalogue and give the universities the freedom and flexibility to offer Bachelors and Masters instruction in the fields that they internally decide.

In Spain, accreditation of programmes exists, but not accreditation of institutions (though the internal quality assurance systems of institutions can be evaluated). Once one university has decided to offer a degree before admitting students, its study programme must be first evaluated by the quality assurance agency in charge (ANECA or one of the regional quality assurance agencies with such a competence), and then authorised by the corresponding region.

Spanish legislation establishes three different stages in the accreditation process (understood as the application of the external quality assurance of Spanish regulations): Ex-ante accreditation, follow-up procedure and ex-post accreditation.

After October 2007 (time of publishing the Royal Decree 1393/2007) and until July 2010, ANECA has performed the ex-ante accreditation of more than 5000 Bachelor's and Master's degrees, which constitutes the new offering of Spanish universities for this course 2010/2011.

Ex-ante accreditation is devoted to verify that the design of the considered study programme includes the criteria established by law and whose interpretation and application was made by ANECA. At this time, ANECA (and other regional agencies) are starting the so-called follow-up procedures to check, by non-intrusive means, that the institution is implementing the study programme according to the approved design. Finally, the ex-post accreditation will certify that the programme has been accomplished according to the already approved conditions in the ex-ante accreditation process (every six years for Bachelors and every four years for Masters).

Concerning the ex-ante accreditation procedure, Spanish regulations establishes that the design for new degrees have to be evaluated according to a series of quality-based criteria to be applied on the basis of the degree proposal presented by the university. This proposal contains the following information:

- 1. Description of the degree
- 2. Justification
- 3. Competences

- 4. Student entry and admission
- 5. Programme planning
- 6. Academic staff
- 7. Resources and services
- 8. Anticipated outcomes
- 9. Quality assurance system
- 10. Agenda for implementing the degree

The rest of this paper is devoted to show where learning outcomes appear in the ex-ante accreditation procedure ANECA has applied during the last three years when evaluating more than 5000 Bachelor's and Master's degrees.

2.2 Where are learning outcomes integrated in the Spanish accreditation process?

Learning outcomes appear in Spanish regulations through Dublin Descriptors. They were included in the Spanish legal framework (Royal Decrees 1393/07 and 861/2010), after which all Spanish degrees need to prove their alignment with the corresponding level. The Spanish Qualification Framework for Higher Education (called MECES) has been established and defined in terms of learning outcomes (in force from December 2010). These legal frameworks (both European and Spanish) are integrated as part of the evaluation process regarding "competences" (referred to as "learning outcomes" here, and when talking about Qualifications Framework).

Section 3 of the proposal for a concrete degree (Bachelor or Master) must explicitly describe the learning outcomes characterising it. And, moreover, the competences to be acquired by the students must be consistent with those required by the degree and by MECES (or by the Qualifications Framework for the Higher Education Area). Competences and learning outcomes must be understood here as synonymous but, when talking about modules in a study programme (section 5 of the proposal), competences must be described in terms of learning outcomes (which implies a different use of both terms depending on the context). The use of the same terms with different meanings depending on the context has been a clear source of misunderstandings during the entire process.

For some "professional" degrees (e.g. Medicine or Civil Engineering), "professional" learning outcomes must also be taken into account both at the proposal and at the evaluation level. The Ministry of Education, in close contact with the corresponding professional counterparts at the administration, defines "a priori" these "professional" learning outcomes.

It is worth mentioning here that, for all the competences (or learning outcomes) included in section 3, their assessment must be described explicitly.

Section 5 of the degree proposal is devoted to programme planning. It must display a coherent structure of modules and ECTS credits in relation to the intended learning outcomes introduced in section 3. Contents, training activities, assessment system and prior requirements specified on each module must be appropriate for the module aims.

Section 8 of the degree proposal must describe the general mechanisms for assessing the learning outcomes of students. Section 9 deals with how the internal quality assurance system works to monitor the appropriateness of the planned learning outcomes assessment.

Each proposal is evaluated by a commission according to a set of previously defined criteria. Those criteria, more closely related with learning outcomes, are the following:

- The study programme must constitute a proposal for study that has been designed
 in a coordinated way and takes into consideration the student's dedication within
 a given period of time. The competences to be acquired by students must be
 assessable and consistent with those corresponding to a Bachelor's or Master's
 degree.
- 2. The study programme must have a module, course and credit structure that is consistent with the defined competences and supported by mechanisms to coordinate teaching. The contents, learning activities, evaluation system and prerequisites specified in each module must be suitable in order for students to acquire the intended competences in the module.
- 3. The design must provide a résumé with the competences to be acquired and their evaluation in the modules that make up the degree design, including the core subjects, compulsory and free choice courses, work experience or placement and the Bachelor's or Master's thesis.

The commission's experts do answer a fixed set of questions, including, when appropriate, the corresponding comments. Among many other questions, those more closely connected with learning outcomes are the following:

- 1. Do the defined general competences correspond with those set by Royal Decree 1393/2007 for awarding of a corresponding Bachelor's or Master's degree?
- 2. Do the proposed competences match those specified in the literature of national and international networks and entities?
- 3. Are the competences acquired by the student in the module/course in line with the requirements of the degree?
- 4. Are the module/course competences specified in terms of learning outcomes?
- 5. Do the contents described in the module/course bear a relationship with the established competences?
- 6. Do the teaching activities in each module/course (considering the teaching/ learning methodology) bear a relationship with the competences to be acquired by the student?
- 7. Do the modules and courses make the study programme consistent with the general aims and competences of the degree?
- 8. Does the proposed evaluation system allow for assessment to be made of the learning outcomes of students?

What has been described so far shows that learning outcomes play a central and prominent role in the evaluation of a degree proposal.

2.3 What are the results of the Spanish ex-ante accreditation procedure? Next steps concerning learning outcomes?

The results of the ex-ante accreditation procedure appear in the next two tables where the results of the evaluation are shown in terms of the five knowledge areas (which are defined in the Spanish regulations). These data were gathered in September 2010.

KNOWLEDGE AREA	NEGATIVE	%	POSITIVE	%	TOTAL
Arts and Humanities	5	1,3%	374	98,7%	379
Sciences	4	1,8%	216	98,2%	220
Health	16	4,7%	321	95,3%	337
Social Sciences and Law	48	5,7%	798	94,3%	846
Engineering and Architecture	26	4,0%	632	96,0%	658
Global	99	4,1%	2341	95,9%	2440

Table 1: Bachelor ex-ante accreditation

KNOWLEDGE AREA	NEGATIVE	%	POSITIVE	%	TOTAL
Arts and Humanities	25	6,2%	380	93,8%	405
Sciences	19	5,6%	323	94,4%	342
Health	17	4,4%	367	95,6%	384
Social Sciences and Law	70	7,3%	888	92,7%	958
Engineering and Architecture	24	4,5%	508	95,5%	532
Global	155	5,9%	2466	94,1%	2621

Table 2: Master ex-ante accreditation

The proposals were evaluated at ANECA by several commissions, most members of which came from academia, but included also students and professionals. In many cases, several iterations were needed in order to obtain a final positive report that typically included several recommendations.

In many cases, a final negative report was based in the fact that the proposed learning outcomes did not fit well with the corresponding level. For example, cases where the intended learning outcomes were too advanced for a Bachelor or too elementary for a Master (according to the level description in terms of learning outcomes (LOs) in the Qualifications Framework for the Higher Education Area).

The ex-ante accreditation procedure is continued now by the corresponding follow-up. Since society (and not only students) needs to get informed about the characteristics of new degrees, this will be, first, based on the need that universities commit with the strong need of visibility and transparency. The other two tools of the follow-up procedure are the monitoring of how the internal quality assurance systems are working, and the comparison between the intended learning outcomes and those achieved by the students.

The follow-up procedure is just starting in Spain since the first (ex-ante) accredited degrees started in October 2008, and it is performed by ANECA and the other existing regional quality assurance agencies in Spain (under the coordination of the Ministry of Education). ANECA is just starting a pilot project to study the difference between the intended learning outcomes and the achieved learning outcomes by analysing a

⁶ The introduction of new programmes together with the analysis of their learning outcomes has opened an important debate within the ANECA evaluation committees that has not been completely solved yet: is it reasonable to offer overly specialised training at the Bachelor level? For example, the opportunity for Bachelor proposals like Nanosciences, Bioinformatics, etc. has been very much discussed.

ANECA considers that the learning outcomes of the new programmes should be in line, at least, with: the naming of the proposed programme; the National Qualifications Framework and/or the Framework for Qualifications of the European Higher Education Area; the stakeholders's opinion; and similar programmes of the international area that support this programme. With this criteria, several programmes of the Bachelor level did not receive a positive report from ANECA at the evaluation procedure, because they were more appropiate for a Master level.

In this link, more related information can be consulted: http://www.enqa.eu/files/QA%20and%20LO/Laureano%20Gonzalez.pdf

random choice of Bachelor's and Master's thesis against the information appearing in the proposal.

2.4 Conclusions

Learning outcomes have been one of the central topics of discussion in the ex-ante accreditation procedure that all Bachelor's and Master's degrees have been through during the last three years. If the focus here was on the intended learning outcomes, the follow-up and the ex-post accreditation procedures will focus on the achieved learning outcomes.

This is not an easy task and there is a strong need for working out an agenda to help universities to adapt their teaching and learning methodologies to a learning outcomes approach (including their assessment). Several working groups have been established (with the help and support from quality assurance agencies, the Ministry of Education and the Bologna Experts Team in Spain) to monitor the role that learning outcomes are playing in our curricular reform (at the design and at the implementation levels) and, when implementing new degrees, to analyse how learning outcomes are used in order to identify common misunderstandings and to provide appropriate advice.

Chapter 3: Determining whether intended learning outcomes meet subject-specific and academic and/or professional requirements

Peter Cullen, Higher Education and Training Awards Council (HETAC), Ireland

3.1. Meaning of Intended Learning Outcomes (ILOs) versus Expected Learning Outcomes (ELOs) versus Actual Learning Outcomes (ALOs)

The following paragraphs outline understandings of the terminology used.

Learning refers to the processes by which a sustainable change in someone's knowledge, skill or competence occurs.

Learning outcomes in this context means 'statements of what a learner knows, understands and is able to do on completion of a learning process, which are defined in terms of knowledge, skills and competence' (EQF⁷ definition).

A programme of education and training refers to any process by which learners may acquire knowledge, skill or competence.

Effective learning activities are purposefully directed towards attainment of a programme's educational goals and build on (connect with) and modify prior learning.

Intended learning outcomes represent a programme's educational goals. They describe the learning outcomes that the teacher intends that learners will attain as a result of teaching and learning activities. It is reasonable to insist that intended learning outcomes must always include specification of the minimum intended learning outcomes.

Actual learning outcomes represent the knowledge skill and competence at the end of a programme. They are actually achieved by a learner and should, if the programme is effective, include at least the minimum intended learning outcomes; they will typically include additional outcomes.

Expected learning outcomes represent in a generalised way the level of learning expected before a particular type of qualification may be made – they are the concern of qualifications frameworks (and subject, discipline and professional standards). Expected learning outcomes may be expressed to define the minimum, typical or range of standards for the level – whichever it is, it should be made explicit.

Learning outcomes may describe the change in knowledge, skill or competence or the cumulative result (end result) of all learning falling within the scope of the qualification and programme concerned, including prior learning at the time of entry to the programme. Expected and Intended learning outcomes expressed for major higher education awards (e.g. awards signifying completion of a Bologna Cycle) are

generally cumulative in this sense. Expected learning outcomes associated with qualifications frameworks are also generally cumulative.

Ideally, intended learning outcomes should be assessable either directly or by inference.

3.2. Mapping of Intended Learning Outcomes to European or National Qualifications Frameworks and any (other) legally binding standards

It is common practice to map ILOs to qualifications frameworks and/or qualifications standards to determine whether they meet the legally binding subject-specific and academic and/or professional requirements expressed by these benchmarks.

Before commenting on what is meant by mapping, it is important to reflect on how frameworks and other standards are expressed and on their varied purposes.

Qualifications frameworks typically consist of a system of reference levels and may include qualification types. The reference levels of qualifications frameworks are normally expressed in terms of generalised expected learning outcomes statements (level indicators). Levels may be defined as ranges or as thresholds. Where a level is defined as a range, the indicators may, for example, signify level completion with pairs of such indicators bounding the range. Alternatively, indicators may express typical outcomes for the level. It is important to be clear about such matters as they can vary between different frameworks.

Typically, the indicators' elements are organised under common strands such as knowledge, skill or competence in the case of the European Qualifications Frameworks (EQF). Qualification types are templates for qualifications that are associated with a level.

There are different kinds of qualifications frameworks, including international metaframeworks, national qualifications frameworks and discipline-specific qualifications frameworks.

Meta-frameworks are designed for aligning national qualifications frameworks but are frequently used to for aligning specific qualifications. They express statements about generalised knowledge, skill and competence. The EQF and Qualifications Framework for the European Higher Education Area (QFEHEA) are examples.

National qualifications frameworks are designed to set overall standards for qualifications, facilitate recognition of qualifications, and facilitate access to, and transfer and progression between programmes. There may be a single multipurpose national qualifications framework in a country or there may be multiple national qualifications frameworks where each might, for example, be optimised for qualifications in a particular domain (e.g. vocational, higher education, etc.). European policy is that national qualifications frameworks be aligned to a meta-framework and hence to each other.

Discipline specific qualifications frameworks may be national or international they are optimised for use within a discipline-area.

Discipline-specific qualifications (or awards) standards may be established in association with a qualifications framework – these set out common features of

specified qualification types in the relevant discipline. The QAA⁸ subject benchmarks are an example.

The higher education qualifications required for certain professions are regulated. This may be at national level (by or through statute) or at international level (European Directives). It should be noted that not all legally binding standards are expressed as expected learning outcomes. Article 46 of Directive 2005/36/EC of the European Parliament and of the Council on the Recognition of Professional Qualifications (which deals with Architecture) is an example where learning outcomes are easily identifiable. However, there are many that focus on (or include) 'inputs' which have to do with how (and for how long) people are educated, trained and assessed.

Mapping involves establishing a (level equivalence) link between the intended learning outcomes (ILOs) and the expected learning outcomes (ELOs) of a standard (whatever the type).

Mapping is typically done in the context of developing, validating, accrediting, reviewing, approving, a programme or recognising a qualification. These processes can be found in both internal and external quality assurance procedures.

Mapping is also applied in both institutional and system level research.

3.3. Need to acknowledge the implications of uncertainty of such mappings—different experts may have different views

Both intended learning outcomes (ILOs) and expected learning outcomes (ELOs) as statements about knowledge, skill and competence admit interpretation variance. Different disciplines may have subtly different ways of expressing ILOs and presumably interpreting ELOs.

It has been argued in the literature that the concept of a 'community of practice' and the associated literature and ideas may be useful for helping to understand how practitioners in different disciplines interact with generalised standards such as qualifications frameworks and help define and express ILOs. It may also help understand how broader consensus about how to consistently interpret multi-purpose qualifications frameworks develops.

Normally, prior to (or during) mapping the ILOs are expressed in (or transformed to) the same format as the relevant ELOs (for example, in knowledge, skill and competence strands).

Mapping of ILOs, for example, to a level in a qualifications framework requires deep understanding of both the ILOs and the framework's level indicators (ELOs). Mapping involves making judgements about level based on the ILOs and ELOs and one's understanding of each informed by other evidence. It needs to be appreciated that judgements are informed by the indicators as well as a person's experience of concrete examples (e.g. various qualifications with which she or he is familiar and which are linked with the framework and/or aligned frameworks). The communities of practice concept mentioned earlier may be helpful in understanding the issues.

It is self-evident that judgements of even well-informed individuals may differ. Collective judgement perhaps informed by accumulation of individual judgements is warranted. This can be accomplished by survey, broad consultation or committee processes (involving panels of experts) or combinations of these.

Regular reflection and evaluation of experience of implementing learning outcomes is also necessary (for example through national or international research projects).

3.4. Mapping (benchmarking) of ILOs against other internationally wellaccepted standards for that subject or profession

Comparing ILOs against other internationally well-accepted standards for the subject or profession is always warranted. This may include benchmarking a particular programme's ILOs against those of internationally respected programmes at the same nominal level, including those in other countries. This is normally done when developing a new programme.

Widespread use of qualifications frameworks and meta-frameworks can facilitate such comparisons by requiring programmes to express their ILOs in formats which facilitate international comparisons.

It is very important for this benchmarking not to result in the cloning of programmes and qualifications. One needs to keep institutional autonomy and the need for diversity in mind.

3.5. Mapping ILOs in emerging areas

Standards development tends to lag the development of new disciplines. New disciplines such as Nano-science and Bio-informatics have grown from inter-disciplinary work. In new areas, there may be no inter-disciplinary standards and little consensus about specific ELOs. In such cases, the generic standards of qualifications framework provides some support as do discipline-specific standards of parent disciplines. Where the latter don't exist, consistent mapping can be a significant challenge.

In designing ILOs for new areas it is important to ensure that they are coherent and not mere aggregations of disconnected knowledge, skills and competences—mapping against generic qualifications frameworks can help bring such issues into focus.

3.6. Panel functionality: needs to be able to work as team

It has already been mentioned that mapping ILOs requires collective judgement. Typically, this will involve a panel of experts. The following principles are offered.

The panel should include:

- international expertise in the discipline concerned
- pedagogical expertise
- at least four members

All who participate in such panels require training in how to consistently scrutinise ILOs and map them to the relevant standards.

Training procedures may also be useful for the purpose of assessment and selection of experts. Performance of experts in panels should be monitored and this may also be used for future selection.

When forming a panel, it is important that due regard is paid to the importance of the panel being able to function as a team.

3.7. Scrutinising Intended Learning Outcomes (i.e. statements about knowledge, skill and competence) in the context of mapping

When a panel (particularly, if it is external) is verifying a mapping of ILOs to a standard, the following points should be taken into account:

· ILOs as statements may be incomplete

- One needs to be clear about what the minimum ILOs are
- Ways of expressing ILOs can vary between different disciplines
- The existence of mature communities of practice is important to ensure ILOs will be interpreted and implemented consistently
- Experience shows that academics are often weak on expressing skill and competence ILOs relative to knowledge ILOs
- When scrutinising ILOs, one should not restrict ones attention to the ILO statements but should also look at assessment (formative and summative), teaching, etc., which can aid in their interpretation and perhaps reveal tacit outcomes or the reverse
- Professional associations tend to be relatively strong on the expression of skills and competences

Examination of the associated programme's inputs, environment, intermediate outcomes, assessment tasks, etc., can all help better understand the intended learning outcomes and the real standard of knowledge, skill and competence required behind the ILOs to be mapped.

Here it is assumed that knowledge, skill and competence in principle can be described. The learning outcomes perspective is particularly well suited to thinking about teaching, learning and quality assurance and is strongly to be encouraged. All of this should not blind one to the profound dangers of focusing exclusively on statements about knowledge, skill and competence or relying solely on comparisons between such abstractions. Any statement about knowledge, skill and competence must be backed up by evidence and this does not mean the existence of good quality assurance procedures—it means direct evidence. In some cases, the interpretation of an intended learning outcome can be clarified if the conditions which are expected to result in that learning, or the assessment task which must be successfully accomplished, are also described.

Higher education quality assurance has never eschewed direct examination of such matters. Accreditation or validation (i.e. external programme approval) is an example of a quality assurance procedure which is concerned with inputs, environment and outputs.

Finally a caveat: Learning outcomes do not represent that last word on curriculum or qualification design and indeed there is ongoing debate about the limitations of LOs as a conceptual tool.

Chapter 4: Which requirements should the formulation of learning outcomes meet?

Norma Ryan, University College Cork - National University of Ireland Cork, Ireland

4.1. Introduction

The introduction of a learning outcomes based approach to teaching in higher education as a formal replacement to the teaching-centred approach was an intrinsic part of the implementation of the Bologna Process. This has essentially meant a shift in focus from the teacher to the student with an emphasis on what a student should know, understand or be able to demonstrate after completion of a process of learning. Although in many instances and for many individual teachers, this has not meant a total shift in approach or in pedagogies used, it is a shift that has required effort on the part of institutions and many teachers. Indeed, the students also needed and continue to need to adapt to the central shift and to take ownership for the learning journey on which they are embarked.

At this point in time, there is a very good, general agreement as to what the definition of a learning outcome is:

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

The learning activity could be, for example, a lecture, a module or an entire programme. For compliance with the Bologna Process, including the alignment of academic programmes with national qualifications frameworks, learning outcomes must be written for each module and for each programme. Learning outcomes must be simply and clearly described and must be capable of being validly assessed. From this definition of learning outcomes, the observer can see an emphasis on the learner and on the learner's ability to 'do something'. This is a central shift in focus away from the teacher and his/her objectives and towards the student and his/her achievements and the skills/competences acquired following engagement in a piece of learning. The use of active verbs and terms such as define, list, name, recall, analyse, calculate, design, etc. to describe the learning outcomes, facilitate the explanation of the achievement targets to be met by the student. It is important to note that learning outcomes are not designed to replace the traditional way of describing teaching and learning but to supplement it.

The subject of a definition of competence or competency is another question and will not be discussed in this brief paper.

4.2. Experiences in implementing a Learning Outcomes Approach – University College Cork: A case study

One of the key issues arising from this shift in emphasis in approach and attitude in higher education is the need to quality assure the process – the pedagogies, the assessment methodologies and the student learning undertaken. This involves, *interalia*, a re-consideration of all curricula and the programmes associated with that curriculum.

The paper presented at the ENQA Workshop - *Quality Assurance and Learning Outcomes*, Vienna, Austria, 9-10 September 2010, focused on the experience of University College Cork (UCC) in introducing the learning outcomes approach to teaching across the entire university in a systematic way, and the steps taken to ensure that the introduction was accompanied by appropriate rigour and standards.

Initially, the university participated in an EUA Quality Culture III Project on *Implementing a Learning Outcomes based approach to teaching* in 2003-2005⁹. A network of six EU universities was involved and the participation of UCC in the project was led by Prof. Áine Hyland, Vice-president and Professor of Education and Dr Norma Ryan, Quality Promotion Unit, UCC. A project of eighteen month duration, the final report was published in 2005. The project focussed on Learning Outcomes rather than Competences, and prepared the way in UCC for the introduction of the approach.

Following on the completion of the EUA project activities, an international Conference on learning outcomes was organised in 2005 in UCC¹¹. In addition to a panel of international experts, a significant part of the conference was the presentation of exemplar material from academic staff of UCC and other institutions on their experiences and research into the experience and effects of trialling the learning outcomes approach to their teaching. Many of the contributors from UCC were engaged in the process of studying themselves for the UCC accredited Postgraduate Certificate or Diploma in Teaching and Learning in Higher Education.

Following on from that event, a plan was prepared for the stepwise implementation of the learning outcomes based approach across all programmes – both undergraduate and postgraduate – offered by the university and based on these experiences. This plan was considered by faculties and ultimately approved by Academic Council following the collegial discussions and consultations. A key resource to this activity was the expertise developed by the contributors to the conference in conducting the research prior to the presentation of their work. Seminars were held in individual departments and faculties and mentoring of staff also took place for those interested.

One of the key elements to the success of the implementation programme in UCC was the publication of a handbook $Writing\ and\ using\ learning\ Outcomes\ -a\ Practical\ Guide^{11}$ by an expert in the field and a colleague in UCC, Dr. Declan Kennedy. The guidelines detailed in the handbook were adopted by the Academic Council of the university and served as the rule book for staff. The handbook included a simple and clear set of guides for the terminology to be used, and the recommended level of detail to be included in formal university publications.

Accompanying this guide the University's Teaching and Learning Support Centre, Ionad Bairre, provided on-going support via lunchtime seminars and workshops on the aspects of the introduction of the approach. These sessions were open to all interested academic staff to attend and discussion was welcomed. Topics included assessment

http://www.eua.be/eua/jsp/en/upload/Quality_Culture_2002_2003.1150459570109.pdf

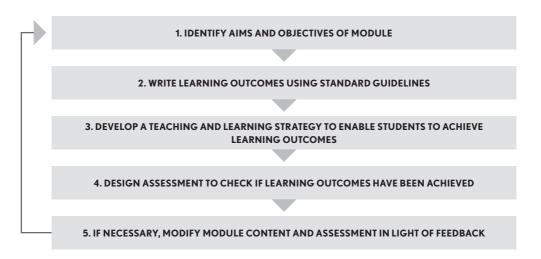
¹⁰ http://www.ucc.ie/en/qpu/loc/. All papers and presentations may be accessed here.

¹¹ Published by UCC in 2007, © Quality Promotion Unit. ISBN 978-0-9552229-6-2.

methodologies, pedagogies, assuring that achievement of the learning outcomes were all covered.

The university prospectus and calendar are published on the university website. These documents contain full descriptions for all modules and programmes according to a set of guides laid down by the university¹². All programmes offered by the university were required to be described in a specific manner and according to a particular format. This process was overseen by a subcommittee of Academic Council, charged with ensuring the rigour and correctness of the procedures. The format adopted by the university ensured the inclusion of learning outcomes and assessments for all modules offered, accompanied by a clear description of the module content and other relevant information.

The figure below indicates the cycle of reflection encouraged in all staff to ensure an on-going reflection and improvement in the module descriptors, including the learning outcomes and also the pedagogies and assessment methodologies.



Staff were, and continue to be, actively encouraged to reflect on their teaching practices and to improve as appropriate. All aspects of curriculum design, delivery, assessment and standards need to be reflected upon in the adoption of a learning outcomes approach.

Students were also involved in the research and activities leading up to the adoption of this approach in UCC. It was actively welcomed by the students who appreciated the clarity and transparency this brought to the objectives of their studies and curriculum. Employers and other stakeholders also welcomed the efforts by the university to clearly and transparently detail all aspects of programme delivery – in particular at the module level.

A key objective for the university was alignment of the programmes with the National Qualifications Framework¹³. This objective was seen as very important by the university and is a key element of institutional reviews in Ireland. The setting down of the learning outcomes was essential to this process of changing and improving the traditional ways of describing qualifications and qualification structures.

Key considerations for quality assurance at the module and programme levels include:

- Are the learning outcomes written according to the guidelines in the literature?
- Are the learning outcomes written according to the guidelines laid down by the institution?

The institution has a responsibility to oversee the process of introduction of a learning outcomes approach to teaching and to be able to assure its stakeholders that:

- 1. Learning outcomes are described for modules and programmes
- 2. Learning outcomes reach a certain standard
- Students and staff are informed of the learning outcomes to be achieved in an accessible manner
- 4. Staff are supported and guided in the writing of learning outcomes
- 5. The institution is satisfied that the approach of staff is not tokenistic
- 6. The quality of the learning outcomes is evaluated
- 7. The learning outcomes for modules and programmes are consistent with the National Qualifications Framework.

4.3. Conclusion

This paper presents a summary of the approach taken in UCC to the introduction of a learning outcomes approach to teaching and learning. The approach was based on both a top-down and bottom-up approach with senior management of the university supporting and leading the discussions whilst allowing a collegial approach to the introduction, engaging the wider academic community in the decisions to be taken. The introduction of this approach was very successful in UCC and has led to an embedded system endorsed by both staff and students within the university¹⁴.

Acknowledgements

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¹³ http://www.nfq.ie

¹⁴ Kennedy, D. Hyland, A & Ryan, N.M. (2007) in The Bologna Handbook, C3.4.1 Raabe Academic Publishers, Berlin "Writing and using learning outcomes: a practical guide"

Annex 1

ENQA Workshop: "Quality Assurance and Learning Outcomes"

9–10 September 2010

Hosted by the Austrian FH Council

VENUE

Hilton Vienna Danube Handelskai 269 1020 Vienna, Austria

Objectives / Questions

- What are the opportunities and the challenges of learning outcome orientation in the higher education sector?
- What do the various stakeholders expect from quality assurance agencies in connection with learning outcome orientation?
- In which way can or should learning outcomes be considered within the scope of external quality assurance? What role should "learning outcomes" play in external quality assurance?

PROGRAMME

13.45

Thursday 9 September

- 12.00 Registration and light welcome lunch buffet Chair: Kurt Sohm, Managing Director of FHR, ENQA Board member
- 13.15 Background/motives, opportunities and challenges of the shift towards "learning outcomes" and the possible impact on quality assurance agencies.

 Don Westerheijden, CHEPS

The Students' Perspective: Pros and cons of "learning outcomes". Expectations towards quality assurance agencies.

Robert Santa, ESU

- 14.15 **Perspective of the higher education institutions:** Challenges of "learning outcome orientation" for quality assurance of higher education institutions. Interaction between internal and external quality assurance. *Volker Gehmlich*, EUA
- 14.45 **Perspective of the business world/employers:** What is expected from the higher education institutions and quality assurance agencies? *Oliver Maassen*, Business Europe
- 15.30 Coffee break

Chair: Rafael Llavori, ANECA, ENQA Board member

16.00 **Moderated panel discussion:** Is there a conflict of interest between labour market orientation and higher education values when using a learning outcome approach?

Participants:

Volker Gehmlich, EUA;

Bardhyl Musai, Albanian Accreditation Council of Higher Education; Robert Santa, ESU; Oliver Maassen, Business Europe;

Achim Hopbach, President of ENQA

18.00 End of the first day

Friday 10 September

Chair: Laura Beccari, OAQ

09.00 Three examples of considering "learning outcomes" in external quality assurance

ANECA – Laureano González

NVAO – Mark Frederiks

Stockholm University and Royal Technical College KTH - Lena Adamson

- 10.30 Coffee break
- 11.00 An example of common principles in the consideration of "learning outcomes"? ECA principles on learning outcomes

 Herwig Patscheider, FHR
- 12.00 Lunch break
- 13.30 Parallel working groups –

How are learning outcomes to be considered in external quality assurance processes?

Working group A. (Room: TULLN) – How can it be determined whether the intended learning outcomes meet subject-specific and academic and/or professional requirements (expertise of the review team, international comparisons (benchmarks), technical qualification frameworks, etc.)? *Peter Cullen*, HETAC

Working group B. (Room: LINZ/MELK) – How can it be determined whether the intended learning outcomes are met (assessment of final papers, interviews of graduates, checking the consistency of learning outcomes – contents – methods of teaching and learning – examination methods, etc.)? Obe de Vries, Dutch Education Inspectorate

Working group C. (Room: HAINBURG) – Which requirements should the formulation of learning outcomes meet?

Norma Ryan, University College Cork

15.00 Break

Chair: Kurt Sohm, Managing Director of FHR, ENQA Board member

15.15 Presentation and discussion of the results of the working groups – further steps

Anne Räsänen, University of Jyväskylä

16:00 End of the workshop

Achim Hopbach, President of ENQA



This report is based on the ENQA workshop on the theme "Quality Assurance and Learning Outcomes" that was held in September 2010 in Vienna, Austria. The workshop addressed the question of what stakeholders expect from quality assurance agencies in connection with learning outcome orientation. The opportunities and challenges of the learning outcome orientation in the higher education sector were discussed from different perspectives. The workshop tried to define the role that learning outcomes should play in external quality assurance and how they can or should be considered within the scope of external quality assurance.





Workshop report 17

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