

SubTheme

1. Quality assurance for enhancement

Title

Assessment matters: the quality assurance of student assessment in higher education

Authors

Obe de Vries (MSc): Inspector, Inspectorate of Education, Netherlands

Fiona Crozier (Ms): Assistant Director, Development and Enhancement Group, Quality Assurance Agency of Higher Education, UK

Nick Harris (PhD): formerly Director, Development and Enhancement Group, Quality Assurance Agency of Higher Education, UK; UK Bologna Expert.

Contact details

o.devries@owinsp.nl

f.crozier@qaa.ac.uk

nickharrisbologna@btinternet.com

Abstract

A working group on the Quality Assurance of Student Assessment was established, on an informal basis, in 2007. An initiative of the Netherlands Inspectorate of Education (IvhO), the Quality Assurance Agency for Higher Education (QAA) and a number of other quality assurance agencies in Europe agreed to join an *ad hoc* project group. Key priorities for the QA of assessment were identified, including the need to consider the balance between comparability, consistency and accountability, the importance of transparency and the need to properly involve staff and students. A set of draft generic principles were derived from discussion of the various practices of which the group was aware. A few specific topics were also selected, including the quality assurance of credit transfer between institutions; assessment of problem based and work-based learning and accreditation of prior experiential learning.

Assessment matters: the quality assurance of student assessment in higher education

1. INTRODUCTION
2. OUTCOMES OF THE DISCUSSION
3. PRINCIPLES
4. SPECIFIC SELECTED TOPICS
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1. INTRODUCTION

The ‘Bologna process’ has introduced and continues to introduce major reforms of higher education across the 46 countries that currently make up the European Higher Education Area (EHEA). Of the ten action lines, several are very directly related to identifying what students have achieved and to demonstrating this clearly. These are:

- adoption of a system of easily readable and comparable degrees
- adoption of a system essentially based on three cycles
- establishment of a system of credits
- promotion of mobility
- promotion of European co-operation in quality assurance
- inclusion of higher education institutions and students

The adoption, by the ministers responsible for higher education, of the Diploma Supplement and the Framework for Qualifications of the European Higher Education Area (2005) provides a sound basis for a shared (three cycle) system of easily readable and comparable degrees that can, through increased transparency, support mobility of students, staff and employees within Europe. These ‘transparency tools’ are further supported by a system of credits which may be accumulated towards qualifications and transferred between awarding institutions when students study in more than one place.

The promotion of European co-operation in quality assurance has been greatly advanced through the adoption of the Standards and Guidelines for Quality Assurance in the European Higher Education Area (2005) (ESG). The ESG set out the key principles for quality assurance within higher education institutions, as well as for those agencies responsible for the external evaluation of these institutions, and for the quality assurance of the agencies themselves.

The link between what students study and the degrees they are awarded is assessment. “The assessment of students is one of the most important elements of higher education” is the opening sentence of the section *Guidelines on Assessment of Students* of the ESG. But there has been relatively little comparative study of the ways in which students are assessed across the EHEA, although anecdote and personal experiences of those staff and students who travel between higher education institutions (HEIs) suggests that practices, and even the principles that assessment practices are based on, vary widely – between countries and regions, between institutions within countries or regions, and between individual members of academic staff within institutions – and even within departments within institutions. If the ‘transparency instruments’ designed to clarify what students have achieved for their (comparable) degrees are to be effective then there needs to be some

agreement of what is being assessed and how, and against what criteria. It is important to find adequate and transparent ways and means to assure the quality of student assessment across the EHEA.

A Working Group on the Quality Assurance of Student Assessment was established, on an informal basis, in 2007. The working group is an initiative of the Netherlands Inspectorate of Education (IvhO) which, in January 2007, invited the UK Quality Assurance Agency for Higher Education (QAA) to join it in carrying out some exploratory work in the field of quality assurance of student assessment practices in HE. A number of other quality assurance agencies agreed to join Ivho and QAA in an ad hoc project group. These included: NVAO (Netherlands and Flanders-Belgium), ARACIS (Romania), ACQUIN (Germany), HSV (Sweden), ANECA (Spain), CNE/AERES (France), and HETAC (Ireland). Two workshops were organized (Amsterdam: March 2007; Bucharest: October 2007) to explore the different approaches to assessment and its quality assurance and seek an understanding of the shared principles and criteria that underpinned the procedures and criteria irrespective of 'local' contexts. A third meeting was held (Berlin: May 2008) to discuss and draft a paper that it was hoped would provide stimulus for wider discussion about the fundamentals of assessment and its quality assurance across the EHEA, and thus add to providing even greater confidence in a 'system of .. comparable degrees' in Europe.

2. OUTCOMES OF THE DISCUSSION

2.1 Quality assurance of student assessment in the wider context

Approaches to the assessment of students' work and achievements are traditionally rooted in the particular historical, legal, national and pedagogical context of the institutions in which they study. Practices vary widely between countries and regions, between institutions and between subject areas within institutions. There is nothing wrong with this – indeed assessment should be designed to the particular needs of each programme and part of a programme of study. But what is important is that the principles, under which those specific practices are designed, are shared, fair and ensure that both the principles and practices are open to scrutiny. The group sought to identify which shared principles are reflected in the different practices undertaken within the various QA systems represented by its members.

Whilst it may seem obvious, the conclusions of various discussion sessions always concluded with a number of generic points:

- emphasis needs to be placed on the careful design of assessments, in particular in terms of validity and reliability;
- assessment must be aimed at showing achievement of specific learning outcomes;
- assessment should be undertaken within an holistic framework that does not miss or 'hide' the achievement of other, non-explicit outcomes;
- assessment should be designed to ensure that appropriate links are made between the assessment of a module and the overall learning outcomes of the programme;
- assessment practices should be kept under review in order to ensure that the impact of new learning environments is recognised.

2.2 Quality assurance of student assessment within the Bologna context

The ESG provide a very valuable starting point for some of the Group's discussions concerning the quality assurance of student assessment. The Group looked at ways in which the general principles underpinning the ESG could be used to assist with the development of fair, transparent and reliable assessment strategies that would verify that students' individual achievements do indeed meet the expectations set out, for example, in the Framework for Qualifications of the European Higher Education Area or in any applicable national frameworks.

Standard 1.3 of the ESG is very explicit on the need for published procedures which are applied consistently, and the guidelines cover the need for assessment to:

- be designed to measure the achievement of the intended learning outcomes and other programme objectives;
- be appropriate for their purpose, whether diagnostic, formative or summative;
- have clear and published criteria for marking;
- be undertaken by people who understand the role of assessment in the progression of students towards the achievement of the knowledge and skills associated with their intended qualification;
- where possible, not rely on the judgements of single examiners;
- take account of all the possible consequences of examination regulations;
- have clear regulations covering student absence, illness and other mitigating circumstances;
- ensure that assessments are conducted securely in accordance with the institution's stated procedures;
- be subject to administrative verification checks to ensure the accuracy of the procedures.

The Guidelines additionally note that students should be clearly informed about the assessment strategy being used for their programme, what examinations or other assessment methods they will be subject to, and what will be expected of them, and the criteria that will be applied to the assessment of their performance.

The Group noted that the Guidelines to ESG 1.3 of the ESG state that:

“student assessment procedures are expected to...take account of all the possible consequences of examination regulations.”

It wondered whether it would be possible to even determine all the possible consequences, and this may be an area where instances of institutional good practice might be usefully shared. The following were however identified as areas where HE institutions and those involved in their quality assurance might reasonably be expected to consider developing procedures with regard to assessment, its application, consequences and impacts:

- ‘externality’ in assessment procedures
- frequency of student assessment
- plagiarism
- student evaluation and feedback
- distinguishing between the roles of supervisor (e.g. in research-projects) and assessor(s)
- complaints handling
- independent committees for reviewing cases of appeal against a mark
- regular feedback from employers

These areas are considered in greater detail below in section 3.

2.3 Quality assurance leading to quality improvement / enhancement: ‘the design – implement – review – improve cycle’ in learning and in QA

Quality assurance itself has certain characteristics that also apply to quality assurance of student assessment. Some of these characteristics would include: clarifying the aim(s) of the assessment, applying a ‘design-implement-review-improve’ (DIRI) cycle to assessment practices and involvement of relevant stakeholders, such as students, peers, future employers etc.

The Group also considered the importance of having QA frameworks that do NOT impede the innovative development of new approaches to assessment. Thus, in addition to the important concept that assessment should be designed and applied in such a way as to contribute to students’ learning, the Group also considered how the quality assurance practices themselves could be improved, within a DIRI cycle:

- at the design stage the focus is the planning of the assessment, i.e. what is the best assessment practice to allow demonstration of a particular learning outcome;
- when implementing assessment practices, the appropriateness of the assessment design is tested and applied to specific circumstances;
- the review stage determines whether or not the assessment practice applied is successful or whether it needs to change in order to improve;
- the cycle finishes with the implementation of the improved practice.

It is also important to mention that evaluation and improvement of student assessment practices should be part of the programme’s overall quality assurance process. This means that the DIRI cycle for assessment is applied on a regular basis within the context of that overall process.

The ESG guidelines note that, ‘where possible assessment should not rely on the judgements of single examiners. The Group considered it equally important that there should be peer opinion in any evaluation of assessment regulations, and that this should inform the briefing for all those involved in assessment. Assessment and its design and operation should be viewed as a collective activity of the teaching team rather than an individual activity.

The Group discussed various systems of quality assurance including the establishment of examination boards and the role of external examiners in some systems. The examples below set out two different European systems:

Example 1: The Netherlands

A survey of examination boards in the Netherlands identified the following shortlist of aspects of quality assurance of student assessment that were found to be useful:

- an assessment policy has been formulated and is being executed;
- the quality of assessment activities tests is reviewed regularly to ensure that the reliability and validity is assured; that assessment activities are consistent and accurate and that they measure the relevant knowledge, skills and competences in relation to the learning outcomes set;

- there is an institutional check to ensure that teachers are competent with regard to assessment and development assessment processes; institutions provide staff development to ensure such competency;
- there are guidelines and procedures for assessment and standards for marking to which staff and students adhere;
- measures are taken to prevent fraud;
- the accreditation of prior learning is based on an established procedure;
- judgements by examiners are taken independently from the institutional management;
- tasks and responsibilities with respect to testing and examination are set out in a publicly available document;
- the institute reports on testing and examination to stakeholders.

Example 2: the UK

Thematic analyses of numerous audit reports of English HE institutions are available through the ‘*Outcomes ..*’ series of papers published by QAA in January 2006 and June 2008 (see: <http://www.qaa.ac.uk/reviews/institutionalAudit/outcomes/outcomes1.asp>).

The most recent report on student assessment includes evidence that:

- in many cases, students were provided with clear assessment criteria and could therefore have a better understanding of what was required of their work;
- almost all reports contain several references to the quality and timeliness of feedback, often drawing specific attention to its importance in supporting student learning;
- the operation of assessment boards is a significant determinant in maintaining academic standards;
- a comparison of assessment arrangements in the reports published after December 2004 with those analysed in the reports published from 2003 to November 2004 shows improvements in the consistency of institutions’ assessment practices.

2.4 Key priorities for the quality assurance of assessment : shared understanding of terminology

Faced with examples of the variety of legal, historical, national and pedagogical contexts in which the quality assurance of assessment operates, the Group sought to identify the key priorities for a shared approach to understanding those elements that are critical in the quality assurance of student assessment. Perhaps not surprisingly in view of previous reports in this area, a starting point was a need to have a shared understanding and clarification of the different terminology used across Europe but over which ‘context’ often has an important and often critical influence. The meanings of

- assessment
- standards and quality
- learning outcomes

are critical in terms of having a shared understanding in the field of student assessment. However, it is often difficult to have a precisely identical meaning of such concepts across 46 differing national and legal contexts within the EHEA. In line with the ENQA seminar held in Warwick in June 2006, the Group would suggest that it is more important to ensure that all those involved take time to ensure that there is mutual understanding of any

differing contexts and, therefore, of possible meanings of such terms in order to facilitate co-operation across programmes, institutions and countries.

3. PRINCIPLES

The Group believed that the DIRI cycle referred to above should be governed by principles that would ensure that student assessment is:

- carefully designed and proportionate
- reviewed on a regular basis, including feedback from students
- an integral part of, and contribute to, the teaching process
- focussed on identified learning outcomes
- based on objective criteria made available to all staff and students involved
- subject to quality assurance at programme level as well as at institutional and national / international levels.

The Group discussed four principles which are set out in the table below for consideration:

Comparability and consistency	Assessment strategies and procedures focus on the learning outcomes (rather than input measures)
	Assessment strategies are applied equitably across an institution and allow for comparability
	Assessment strategies are applied consistently within institutions and across discipline areas.
Accountability	All individuals and committees involved in assessment are aware of, and act in accordance with, their specific and identifiable responsibilities
Transparency	The assessment strategy being used for a programme is clear and easily available to all staff and students involved
	Students are informed of the form(s) and extent of assessment they will be subject to, and what will be expected of them
	The criteria used are relevant to the (programme's) learning outcomes being assessed , and are available to all staff and students involved
Involvement	All staff involved in the delivery of a programme or its parts are involved in the design and implementation of the overall assessment strategy
	Students have the opportunity to offer their views on the amount and type of assessments they undertake, and whether they are regarded as both 'fair' and 'effective' measures of their learning and abilities.

3.1 Comparability and consistency

The Group considered that focussing on learning outcomes is essential for comparing programmes across disciplines and national boundaries, not least to ensure that programmes are placed correctly on any national or European qualifications framework to allow for comparability (for example, student performance at bachelor, master, and doctorate level).

Assessment strategies should be applied equitably across an institution, should allow for comparability and should be applied consistently within institutions and across discipline areas.

3.2 Accountability

Accountability is seen as the responsibility for demonstrating appropriate objectives and the achievement of those objectives. One is accountable to one's own institution, and also to other stakeholders.

The group considered the following quality indicators for accountability. These indicators are applicable to all levels of HE (individual member of staff, department, faculty, institutional) and also at the national level:

- A true culture of self evaluation is in place. The following may be useful: “What do you do, why are you doing it, how do you do it, why are you doing it like that, how do you know it works and how are you improving it?”;
- There is a balance between the institution's expectations and the expectations of stakeholders;
- Institutional priorities are explained to stakeholders;
- Each individual teacher evaluates the assessment for which s/he is responsible and this is fed upwards to the different levels within the institution for monitoring and evaluation purposes;
- Students are aware of the outcomes of any feedback they provide regarding assessment.

In line with the DIRI cycle, the application of these quality indicators, can be demonstrated in the following ways:

- *At the level of the individual member of staff* – he/she is aware of and uses the relevant criteria. There is a policy for ‘double marking’, which means that each piece of assessment is not the sole responsibility of one staff member;
- *At the level of the department* – records are maintained and collated; anomalies are identified and investigated. Summaries are passed to faculty (or similar) level;
- *At faculty level* – departmental summaries are compared for consistency across programmes and between years and are passed on to institutional level;
- *At institutional level* – faculty level reports are reviewed against the reports of the institution's external examiners, if these form part of the framework, or against other institutional and/or national indicators;
- *At national level* – all institutions are either reviewed or audited on a regular basis. These external reviews will (amongst many other things) consider the way the institution deals with assessment in all of its aspects, including its appropriateness, fairness and consistency.

Depending on their individual context and mission, institutions may also wish to consider the following:

- The provision of reasonable accommodation for learners with special needs
- Matters specific to assessment in a modular environment
- The recognition and reporting of assessment results for periods of study in another institution, whether national or international.

3.3 Transparency

The Group took the ESG as a starting point for further discussion. The ESG standard on Assessment (1.3) reads: *Students should be assessed using published criteria, regulations and procedures which are applied consistently.*

The relevant guidelines to this standard are:

Students should be clearly informed about:

- *the assessment strategy being used for their programme.*
- *what examinations or other assessment methods they will be subject to and what will be expected of them.*
- *the criteria that will be applied to the assessment of their performance.*

The following additional indicators were formulated by the Group:

- Assessment regulations and marking criteria are transparent and easily accessible to staff, students and other interested stakeholders. For example, programme aims, objectives and learning outcomes should be accessible to and understood by not just staff and students but also other members of the public;
- Institutional regulations are understood and operationalised at departmental level;
- Responsibility for (aspects of) assessment (both staff and students) are clearly set out and understood by staff and students.
- The institution is clear about its assessment policies. Does it, for example, require either consistency of adherence to principle in practice or consistency of compliance with a regulation. This is important in order to deal with perceived or actual differences in assessment regimes between different disciplines).

3.4 Staff and student involvement

Whilst there is a general expectation that all staff involved in the teaching of a programme are in some way involved in its assessment, it is important that quality assurance procedures should identify just what specific roles and powers the various contributing staff have and - for the sake of clarity – do not have.

The group felt it important that there should also be a role for students in all aspects of assessment from its design through to implementation and review. Students might give valuable views as members of staff/student liaison teams or of programme or faculty boards. It is also important, given the points made above about transparency, that students are consulted about changes to assessment which affect them as they move through their programme of study.

Student involvement is relevant at the level of programme, department, faculty, institution and at the national level. The following quality indicators for student involvement are suggested:

- there is an easily accessible public policy statement about student involvement;
- the policy statement is put into practice;
- there is student involvement in QA in the different stages of assessment;
- there is student involvement at different levels (programme/faculty/institution), on different boards so that they can give their views on assessment procedures and contribute to their review and enhancement.

4. SPECIFIC SELECTED TOPICS

During their discussions the Group focussed in particular on recent developments in higher education that, though currently operated in some areas, are not widely spread across all parts. Topics of particular interest that are likely to be of increasing interest in the foreseeable future include quality assurance in relation to credit transfer between HE providers, the assessment of problem based and work based learning, and the accreditation of prior and experiential learning.

4.1 Credit transfer between higher education institutions

Credit transfer between HE providers is at the ‘heart’ of the Bologna process, and its efforts to enhance transparency and support greater mobility for students during their studies, but the simple concept is fraught with particular quality assurance problems.

Whilst entirely supportive of the role of credit (and ECTS in particular) the Group noted that the quality assurance issues concerned with accumulation of credit within a single ‘awarding body’ though not trivial are far more straightforward than when credit is transferred between awarding bodies and then accumulated towards a degree or other qualification.

In essence, the reliability of credit transfer and its subsequent accumulation is largely dependent on the extent to which the ‘match’ and validity of the learning outcomes for which the credit was awarded in the first instance are relevant to the course/programme learning outcomes of the award that is made. If quality assurance focuses on the learning outcomes then transfer and accumulation are likely to be secure. If quality assurance is limited merely to whether ‘the numbers add up’ then the transfer and subsequent accumulation of credit to an award is likely to be more risky.

4.2 Assessment of problem-based and work-based learning

Changes in the ways in which higher education programmes are being delivered and assessed have direct consequences on their quality assurance. The shift from more traditional forms of teaching and assessment is occurring in different ways and at different rates across European higher education.

Greater emphasis is being placed on problem-based learning and assessment in both university and college based programmes, irrespective of whether they are of a more applied or theoretical basis. The Group learned of a variety of approaches and associated

assessment arrangements and concluded that from a quality assurance perspective it was increasingly important to ensure that there was clarity (particularly for the students) about the intended purposes and learning outcomes of any course or programme component, and essential that the design of any assessments was specifically targeted to those learning outcomes, and supported by a set of criteria that would explain to students (and markers) just what was being undertaken and what was expected. Criteria should be identified to explain the requirements for a straightforward pass, and where relevant additional criteria and guidance should be available to explain any grading schemes.

The Group was particularly concerned to note that these matters become increasingly critical where assessment is related to work-based learning, and especially if assessment takes place within the work environment, since it is important that the four principles discussed above are still applicable. Students must be treated equitably to ensure that they have a proper opportunity to attain the expected learning outcomes, and further that any support, or supervisory staff should be aware of their responsibilities relating to the student's learning opportunities. It is also essential that all of those involved in assessment must be aware of the nature and application of criterion based assessment methods, and the general and any specific local requirements relating to the quality assurance of that assessment.

4.3 Accreditation of prior and experiential learning

Accreditation of prior or experiential learning (AP(E)L) differs from assessment during courses or programmes in that the main aim of AP(E)L is to identify what specific learning outcomes have been demonstrated and the extent to which these can be awarded credit either in a general sense or, more commonly, against specific learning outcomes that are required to complete a course or programme. Given the increasing societal importance of AP(E)L as a means of contributing to lifelong learning, the working group discussed the various systems in participant-countries. In particular the QAA guidelines on AP(E)L were viewed as a helpful frame of reference. The Group formulated the following proposals:

- prior learning is recognised on the basis of identified principles and an established procedural *framework*. AP(E)L principles might be formulated more generally at the institutional level with more specific criteria operating at departmental levels, but it would be important for an institution to ensure that, for equity and transparency there was a shared institutional framework;
- a consistent and reliable system of AP(E)L with sound assessment is only possible where assessment includes quality assurance 'checks and balances' that ensure that the learning outcomes, however achieved, are demonstrably relevant to the awards that are made;
- many of the generalized indicators as mentioned under "quality assurance of assessment" apply to accreditation of prior learning as well.

5. CONCLUSIONS

5.1 General

The Group's discussions covered both the detail of assessment approaches and practices in the different countries / regions represented and their quality assurance. Additionally and

importantly, it covered the challenges associated with the changing requirements placed on higher education providers not just through the Bologna Process but also as a result of the changes in education more generally with increasing diversity in design, delivery and outcomes, particularly where these are more directly aligned with emphases on employability, mobility and lifelong learning including learning in the workplace. Discussion focussed on the increasing importance of quality assurance in providing confidence in what students from a diversity of backgrounds, and with a wider range of expectations and ambitions, have already achieved and are likely to be able to achieve in the future (employment).

The development of the Framework for Qualifications of the EHEA has had a substantial impact by clarifying, in general terms, what the expectations are of degrees that represent the end of each of the Bologna cycles. Its Dublin Descriptors do not list innumerable specific learning outcomes but indicate the generic achievements and attributes of graduates at each level. Similarly the ESG identify, at a relatively general level, a consensus of the essential requirements for a shared confidence in quality assurance systems, whether internally within HE institutions, for those bodies that evaluate institutions or for the evaluation of the quality assurance agencies themselves.

However, there appears to be a critical link that may not be particularly well covered – the quality assurance of student assessment. Different historical and pedagogical traditions and legal frameworks have resulted in different approaches to higher education across Europe, yet all are facing similar challenges with increasing emphasis on the importance of ‘learning outcomes’, and a greater diversity of what and where higher education ‘is’.

The Group began with a view that the identification of a simple ‘check list’ of important criteria relating to assessment would be a valuable addition to quality assurance across the different HE systems and QA ‘jurisdictions’. It soon became apparent that this was too simplistic a notion, but that ‘something’ was needed – to provide guidance, and perhaps later some standards, on those aspects that should at least be considered, if not covered, to provide reassurance that student assessment is transparent, valid and fair.

The Group has identified a series of topics that might usefully be considered further, and in most cases acted upon to provide mutual confidence that individual QA systems are adequately covering the critical topic of student assessment. These are set out in paragraph 3 above; they build upon and may be a useful adjunct to the ESG which the group ‘tested’ within their discussions and found to be particularly valuable.

5.2 Proposals for further work

The paper presented here summarises discussions in which the participants agree that:

- the findings and proposals in this paper apply to their specific situations, with no major differences of view on the importance of the concepts identified
- the framework presented above was thought to be useful; but it would be important to have it discussed and test it more widely
- It would be useful to develop European ‘tools’ to support greater transparency, accountability, and comparability / consistency relating to assessment practices and outcomes.

Whilst an ad hoc working group cannot make any formal recommendations, it concluded that the relevant European bodies, including ENQA, EUA and ESU, could usefully lead further work. Having found the FQ-EHEA and the ESG invaluable in its work, the Group identified that further European level guidance on student assessment would be advantageous. Recognising that this should be inclusive but not prescriptive, the Group hopes that the work presented here will inspire others, such as quality assurance agencies, higher education institutions, professional and student bodies to join the ongoing debates on quality assurance and student assessment, and thus further the development of the EHEA and higher education worldwide.

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