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Handbook for Quality in e-learning procedures

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Acknowledgements / about SEQUENT project

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The SEQUENT project aims to promote excellence in the use of ICT in higher education, with a clear goal to prepare European Universities in line with the European Modernisation Agenda and to make higher education in Europe fit better to cross-border collaboration initiatives in the implementation of innovative and ICT-enhanced partnerships. To this end, the project will base itself on models that have been developed by previous EU-funded projects and other internationally recognised models that enhance the quality of ICT in higher education. The project will raise awareness within the European higher education community on the importance of a mainstreamed ICT uptake through project events and the partners’ large memberships.

The consortium of the project is composed of the European Association of Distance Teaching Universities (EADTU) as the coordinator and the European Association for Quality Assurance in Higher Education (ENQA) as the partner. EFQUEL, the European Foundation for Quality in e-learning, was a partner until it closed down in December 2014, after which event the remaining work they had to do was taken over by EADTU staff and consultants.

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Quality Assurance of e-learning

This handbook is designed to provide guidance and information on the impact of e-learning and other aspects of application of ICT in higher education on the design and its integration within institutional and national of quality assurance processes. It distills information and experience of the operation of the e-learning quality assurance labels designed by the project partners and the outcomes of discussions and surveys conducted with institutions and agencies during the project that are presented in greater detail in the accompanying case study documents. These studies have indicated that there has been significant progress at institutional level in the development and adaptation of their quality systems but that there is limited evidence of specific processes or requirements being defined within national quality assurance systems.

ENQA is the European coordinating body for National Quality Assurance Agencies, provides guidance on the nature of Internal QA (that carried out by the institution) and External QA (that carried out by the National Agency) in its Standards and Guidelines for the Quality Assurance in the European Higher Education Area (generally abbreviated as ESG). The latest edition of these guidelines is scheduled for ratification and adoption in May 2015 and has been adopted by the SEQUENT team as a key reference point for this handbook.

Given the challenge of embracing all aspects of quality assurance across the national and sectoral diversity embraced by the EHEA it is understandable the ENQA adopts and broad generic approach in these guidelines. The context setting introduction states:

“Broader access to higher education is an opportunity for higher education institutions to make use of increasingly diverse individual experiences. Responding to diversity and growing expectations for higher education requires a fundamental shift in its provision; it requires a more student-centred approach to learning and teaching, embracing flexible learning paths and recognising competences gained outside formal curricula. Higher education institutions themselves also become more diverse in their missions, mode of educational provision and cooperation, including growth of internationalisation, digital learning and new forms of delivery. The role of quality assurance is crucial in supporting higher education systems and institutions in responding to these changes while ensuring the qualifications achieved by students and their experience of higher education remain at the forefront of institutional missions.”

The highlighted section indicates the dimensions that the SEQUENT project regards as aspects to which the adoption and implementation of pedagogies enabled by online and e-learning approaches is of particular relevance.

The ENQA Guidelines are neutral in respect of mode of delivery, place and time of study and hence suited for a future of diverse provision of higher education in which flexibility in study patterns will be valued by students and employers providing opportunities for integration of work and study achievements and fostering cultures of lifelong learning. Integration of technologically enhanced learning modes will form an essential component of higher education systems and their quality assurance will be embedded within institutional processes.

Currently national quality assurance systems differ in the detail of their approaches and requirements. Change is necessarily evolutionary and subject to stakeholder consultation and
negotiation hence the European agencies are different points in their evolution towards a unified approach. For all agencies the vast majority of their activity has been, and remains, concerned with presentional modes of delivery. Engagement with e-learning and online learning is more limited with agencies variously adopting cautious approaches on guidance and requirements in respect of e-learning provision. However as institutions expand the role that technology enhanced learning plays in both presentional and non presentional provision must be a transition to mode neutral quality assurance.

Quality Assurance review mechanisms will be based on institutional self analysis interrogated by Peer Review processes hence it largely rests with institutions to demonstrate how their detail processes address the requirements of the more broadly expressed criteria of the national agencies.

Arguably the tangible and quantifiable evidence associated with online learning and e-learning is greater than that associated with classroom based teaching. Teaching materials and resources are available for reviewer inspection, the VLE data contain information on student access and interaction and student- student and student-teacher interactions may be available through records of forum postings, discussions and e-mail traffic.

Hence the perceived challenges of QA of online learning lie not in lack of evidence but in its presentation in a form that allows parity of consideration with the established majority mode of provision and its associated expectations of performance.

As the focus of quality assurance agencies shifts towards improvement and enhancement institutions will adapt and develop their internal QA processes to meet the requirements of their own contexts.

There is no single starting point for this journey hence no single defined route other than to trace a path consistent with the generic guidelines of the ESG but defined by the specific contexts of institution and national agency.

The core of the handbook uses the ENQA ESG standards for internal assurance to define the broad context that will shape institutional approaches to the quality assurance approach they adopt to online and e-learning. It draws on the resources of the project partners background experience gained through the e-xcellence UNIQUE and ECB Check programmes with some elements of its text derived from the e-xcellence Handbook.

The Handbook aims to illustrate how factors associated with quality assurance of online and e-learning might map to the broad requirements of the ESG. Its aim is to act as a stimulant to discussion rather than a source of information, it is informed by developments in e-learning over a twenty year period. As in other areas of economic and social life exploiting developments in digital technologies, change can be rapid and sometimes in unexpected directions hence it makes no projections for the future other than increased usage of technology enhanced learning in the higher education systems of Europe.
Future Directions of HE in Europe

From the perspective of the European Commission future directions for Higher Education will embrace improved efficiency, flexibility and increasing focus on the skills that graduates require to facilitate growth in European economies. Adaptation to changing technologies demand change in both the content and pedagogies of HE programmes will enable the provision of the student centred approach envisaged in the upcoming (May 2015)Yerevan statements on the future of Higher Education.

The contribution made by online and e-learning in achievement of these goals may be summarised:

- Flexibility in time, place and pace of study can be enhanced by digitally enabled pedagogies
- Acquisition of the professional skills required to work and practice in the digital workplace.
- Preparing the foundations for flexible careers in which updating through online CPD programmes becomes the norm
- Continuing learning for personal and professional purposes through the flexible use of Open Educational Resources

Role of QA Agencies

ENQA is the coordinating agency for Quality Assurance acting as a forum in which national and regional QA Agencies share experience and develop policy and standards designed to move the EHEA forward to secure common standards in accordance with Bologna principles. To this end ENQA has developed its *European Standards and Guidelines for Quality Assurance*, first published in 2005, modified in 2009 with further modifications due for adoption in 2015. It adopts a three layered approach addressing i) the internal quality assurance processes implemented by institutions, ii) the external quality assurance processes of review carried out by Quality Assurance Agencies and iii) the processes to be adopted by ENQA in accrediting its member institutions.

The role of quality assurance agencies is seen as embracing two main areas: i) Consumer Protection ensuring that students, their sponsors and broader stakeholders have access to programmes that are fit for purpose and that public expenditure on higher education is managed with probity and efficiency, ii) Improvement and Enhancement ensuring that institutional processes of quality assurance benefit the educational experience enjoyed by students.

The approaches adopted by QA Agencies within the EHEA vary in the emphasis that is accorded to each of these aspects of quality assurance dependent on the national context and history of the agencies. In some countries formal accreditation of programmes, and even courses within programmes, forms a major element of the work of the agency hence institutional focus on compliance with regulation and norms predominates. Innovation and adoption of new pedagogies may be seen by institutions as high risk activities.

In those territories where QA agencies focus on improvement and enhancement institutions have greater autonomy in the design and mode of delivery of their programmes hence adoption of innovative pedagogies has fewer barriers but robust institutional systems are needed for risk management.
However ENQA policy and guidelines point to a future convergence of national approaches on systems that have improvement and enhancement as their primary focus, are neutral in terms of mode of delivery and recognise the growth of internationalisation and digital learning. ENQA: Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG)

Clearly these three aspects are not independent of each other as institutions develop their own procedures to ensure compliance with national standards.

However as in the hierarchy of quality assurance the institutional layer has the greatest number of actors this handbook addresses the processes of quality assurance at institutional level to assist academic, administrative and other professional staff in the development of QA process and performance measurement.
Internal Quality Assurance

Intro

The Internal Quality Assurance processes implemented by institutions represent the front line of quality assurance covering the processes of internal decision making, management and most importantly the services provided and interactions with students. In implementing QA systems appropriate to the design and delivery of e-learning and blended learning institutions must have regard to both their internal requirements and those of the External Quality Assurance regime to which they are subject. In each there should be flexibility to allow adaption to changing pedagogies and technologies.

However as innovation is more likely to be driven by institutions rather than Quality Assurance Agencies institutions will find themselves in the forefront of the development of appropriate quality measures.

In the sections that follow the ESG standard is presented accompanied by comment on factors relevant to the implementation of online and e-learning programmes.

Policy for Quality Assurance

ESG Standard:

Institutions should have a policy for quality assurance that is made public and forms part of their strategic management. Internal stakeholders should develop and implement this policy through appropriate structures and processes, while involving external stakeholders.

This statement emphasises the need for quality assurance to be an integral component of an institution’s strategic management processes. In implementation of e-learning and blended learning strategies the following factors should be addressed.

Strategic objectives

The institution’s strategic plan should encompass a vision for the use and development of technology enhanced learning and provide a timescale for the achievement of its strategic goals. These should be realistically supported through allocation human, technical, digital and financial resources.

Integrated management of the institution’s administrative systems and its Virtual Learning Environment will facilitate provision of student centred services.

Plans should also address issues of intellectual property rights, data protections and accessibility as policies formulated for conventional provision may not be fully adequate to cater for stakeholders in online provision.

Significantly ENQA’s guidelines alert institutions of the responsibility to ensure that QA processes embrace activities that might be delegated or subcontracted to other organisations. These might typically include provision of network services or management of the institution’s VLE.
transnational provision elements of recruitment services may well be carried out by agents, these services must also be incorporated with the institutional QA structure.

Cascade of Objectives

The institutional strategic plan should provide the framework for the development of departmental and faculty plans which are consistent with institutional objectives and policies.

The institutional strategic plan should identify the roles that e-learning will play in the overall development of the institution and present the options for the use of e-learning in teaching for example through the definition of a spectrum of “blends” of e-learning and more established teaching and learning mechanisms. There should be a rationale for these with identification of the roles they might play in addressing particular aspects of student demand or the institution’s educational mission.

The Showcase documents provide exemplars of the role that e-learning or online learning strategies play within institutional strategic plans.

Faculty and departmental plans should aim to match the student requirements of their particular market sector (employment, national or international focus) in presenting e-learning/blended learning options.

The institutional plan should ensure that the plans of academic departments are compatible with each other. Student mobility between departments should not be restricted by major differences in policy or implementation.

Provision of e-learning and blended learning programmes may well require greater liaison in departmental planning given the dependence on technical infrastructure and centrally provided services. Specification of the expectations and responsibilities associated with interdepartmental service provision may form an important element of Quality Assurance processes.

Institutions should aim to ensure that there is a widespread understanding of and engagement with the implementation of e-learning strategy and policy across the institution.

Design and Approval of Programmes

ESG Standard:

Institutions should have processes for the design and approval of their programmes. The programmes should be designed so that they meet the objectives set for them, including the intended learning outcomes. The qualification resulting from a programme should be clearly specified and communicated, and refer to the correct level of the national qualifications framework for higher education and, consequently, to the Framework for Qualifications of the European Higher Education Area.

The ENQA guideline present the requirement for structured decision making on programme design and approval that is applicable to all modes of programme delivery.
Increasingly programmes and qualifications are designed around learning outcomes, hence in designing programmes for e-learning delivery the institutions staff should establish how best to exploit the potential of e-learning methodologies. E-learning programmes may require differences in the distribution and sequencing of components to

Additional factors related to European aspirations on digital professional competences and lifelong learning are not directly addressed but may be of specific relevance to the affordances of online delivery and e-learning in meeting demand for flexibility of study. Institutions may wish to give consideration to the following factors in approval of online and e-learning programmes.

**Design for competences**

There is an increasing focus on student learning outcomes as the focus for specification of programme and course curriculum in preference to knowledge content specification. This transition is driven by the acknowledgement that IT enabled access to information has transformed the nature of scholarship and professional practice in many fields. The competences of accessing, managing and processing information will underpin active participation in civic and professional domains. Hence curriculum design processes that integrate their development alongside acquisition of specialist subject knowledge and skills are important quality indicators.

**Design for flexibility**

Curricula using e-learning components offer opportunities for personalisation and flexible paths for the learner while ensuring the achievement of learning outcomes. E-learning offers opportunities to provide flexibility in time, place and pace of learning. The presentation of content can be more flexible than in traditional classroom based presentations exploiting online information sources, video and audio channels. The didactic approach can be more open blending teacher led activities with extensive student participation.

Institutions intent on enhancing the quality of their provision should be able to demonstrate that their policies take due account of student requirements for flexibility in their time and place of study and that they monitor the impact of their policies and procedures on course and programme completion. Studies of patterns of usage of VLE systems and other service together with student survey feedback should inform the evolution of policy.

**Time and Place:**

At the **macro** level students may have the flexibility to start and complete courses and programmes to schedules of their own choosing.

At the **micro** level e-learning offers the possibility for students to work to flexible timetables of their own choosing within a cohort of students progressing through the course or programme to overall schedules established by the institution.

In curriculum design the focus is usually on the macro level with the presumption that the detail relating to course materials design and delivery system availability will be implemented to maximise micro level flexibility.

While conventional annual or semester-based cycles of course provision may not be appropriate for students on e-learning programmes, the scheduling of courses with no fixed start or finish times is
not necessarily educationally effective or desirable. Fixed start and finish dates for modules
constrain student flexibility but facilitate the management of student cohorts and allow for
participation in group activity.

Fixed times for submission of assignments provide target dates for task completion which help to
maintain pacing and engagement. Similarly, synchronous online events can provide a structure
analogous to the lecture or seminar schedule of a face-to-face programme. However, detailed
scheduling may place significant restrictions on the flexibility required by students facing pressures
from family or employment obligations.

**Place**

E-learning programmes should offer learners considerable flexibility in the place of study with the
optimum being the full provision of learning facilities via any internet access point.

The institution may operate a network of study centres to provide elements of e-learning on an
intranet basis (e.g. for reasons of software licensing or specialist video conference services). The
requirement for attendance at such centres should be clearly recognised as placing a restriction on
student flexibility. Attendance requirements should be made clear to students prior to
registration.

 Provision of aspects of the curriculum that require access to specialist facilities such as laboratories,
and direct face to face contact may prevent institutions offering programmes fully on line. In these
circumstances blended provision is the only practicable mechanism.

A major issue for curriculum designers is the temporal distribution of activities that are restricted in
place. Designers may chose to aggregate face-to-face activities in a small number of modules within
a programme with the result that these modules require similar levels of attendance to conventional
provision. Alternatively curriculum designers may distribute the activities so that the majority of
modules have a limited requirement for attendance.

It is envisaged that institutions will address issues of eligibility for study by virtue of place of
residence at national, European Education Area and broader international presentation and will
have adequate policies relating to rights issues, fee levels, examination arrangements *etc*.

**Design for virtual mobility**

The introduction of e-learning programmes is seen by many institutions as a significant contributor
to expanding their recruitment to larger national and international audiences. Whilst technological
infrastructure may enable international delivery there may be significant legislative barriers to
effective transnational presentations. Institutions should make every effort to be fully aware of the
national policies and legislation regarding the recognition of qualifications gained by e-learning in
territories from which they accept student registrations and that they advise students of the status
that their qualification offers.

Institutions should also recognise the potential for two way traffic in the e-world and provide
opportunities for their students to participate in online programmes offered by others. In the EHEA,
recognition of ECTS credits achieved through study of online programmes should be routine.
Institutions seeking to extend their student offerings might consider integration of online modules
delivered by other insitutions within their qualification structures.
Consistency in module size, clearly stated learning and skills development outcomes will assist students in the selection of programmes and study modes that best suit their requirements.

**Student Centred Learning and Assessment**

**ESG Standard:**

Institutions should ensure that the programmes are delivered in a way that encourages students to take an active role in creating the learning process, and that the assessment of students reflects this approach.

**Student Centred Learning**

A transition to student centred learning is a priority for the EHEA and e-learning can be seen as a key enabler of this process. The break with the traditional classroom based model forces a reconsideration of the way in which learning interactions take place. Simply recording the lectures of existing programmes for viewing by online students does not represent a significant shift in pedagogy. Text based and screen based teaching materials are inherently more student centred than teacher centred lecture presentation but current technologies offer a rich range of techniques for creating student centred learning. Some national professional bodies, for example the UK medical professions, have pioneered the implementation of problem based approaches to teaching and learning which has its self prompted the adoption of e-learning methodologies for case study and other simulations.

Four aspects of student centred learning can be envisaged: i) student centred teaching/learning materials, ii) academic community development iii) student-student-teacher interaction iv) interaction with professional community.

**i) Student Centred Materials:** The use of learning materials designed for independent study offers learners significant flexibility in time and place of study.

Self-study materials may provide part of the main course material but may also offer a valuable mechanism to provide additional support in topics that may be desirable, rather than essential prerequisite knowledge for a course.

Self-study materials may be designed to serve the needs of several courses or programmes thus each package should be self contained, have clear learning objectives and measurable outcomes.

When delivered by e-learning the materials should be designed to maximise the use of interactive techniques to provide opportunity for student self assessment of progress towards learning outcomes. The expansion of the availability of readily accessible repositories of learning objects (OERs and similar) may enable institutions to augment their own inventory of self study materials and provide their students with a wider range of self study materials than current practice allows.

Course designers should establish the extent to which they will exploit the availability of self study materials.

**ii) Academic Community Development:** Participation in a scholarly community that values the exchange of knowledge and ideas is an essential component of higher education. Institutions
presenting e-learning programmes should design their curricula to foster broad participation in an on-line academic community.

In some instances participation is explicit through student (and staff) contributions to group activities designed as components of the curriculum. In other instances it is implicit through scholarly social interaction in a campus based environment.

To provide parity of experience between traditional forms of higher education and provision primarily delivered through e-learning, institutions should specifically address the issue of formal and informal community building across its academic community.

Policies for curriculum design should specifically address the knowledge and skills acquisition required by national and European award structures, identify those elements in which collaborative activity is required and provide broad direction as to how students following e-learning programmes should participate in the broader academic community.

Three aspects of community development may be identified to which curriculum design needs to be sensitive.

Firstly, a general academic community is required by all departments and divisions of the institution to provide a framework for student-teacher and student-student interactions.

Secondly, communities may need to be established to fulfil a specific academic objective, such as participation in research activity.

Thirdly, communities may need to be established to link students in with broader professional communities.

Student-Student-Teacher interaction: E-learning offers modern ways of building communities between teachers and students, and between students and their peers. Time, place and pace of study may be flexible, content may be presented remotely, however personal interactions between student and teacher (tutor) and among students are key components of e-learning in a higher education context. As there is no direct contact in the delivery of learning content, it should be a principle of curriculum design to embed prompts that encourage online contact between the participants in the teaching-learning process.

If student-student interaction is required for a specific pedagogic function (e.g. to provide for the development of effective team working skills) curriculum designers should establish the requirement in programme specifications and ensure that the responsibility for teaching and assessing these skills is allocated appropriately between courses in the programme.

Students should be informed of those peer interactions that are essential to successful completion of a programme, and measures should be in place to ensure that such interactions are appropriately monitored and assessed.

Structuring remote student-student contact for discussion presents significant challenges but the institution should be supportive of the formation of on-line discussion groups.

The institution may work with student groups and associations in fostering on-line student groups that operate independently of programme structures. These groups may have a subject, professional or predominantly social focus.
Assessment policy may provide a structure for one to one contact between teacher and individual students.

The role of the teacher as the leader of a student group provides the teacher with a rationale to act as a focal point for student discussion.

Teachers or experienced students may be allocated the role of moderating student discussion areas, ensuring that appropriate levels of online etiquette (netiquette) prevail.

Electronic forums for interchange of experience amongst teaching staff provide important mechanisms for staff development through exchange of good practice.

iv) Interaction with Professional Communities: may be seen as the most challenging however the majority of professions are adapting their ways of working embracing the use of digital technologies. Online communities exist in all spheres of professional activity and may be open to the involvement of students within them. Institutions may seek to involve alumni in a particular profession in the formation of discussion and professional advisory groups for their students. Professional blogs, observations on professional practice may offer a mechanism for engaging students in employability related aspects of their programmes.

Students pursuing online programmes for Continuing Professional Development or lifelong learning purposes are likely to be in employment and well placed to contribute to forums and discussion groups on professional matters.

Summary Online and e-learning programmes offer a rich suite of mechanisms for student engagement in the creation of the learning experience,

Student admission, progression, recognition and certification

ESG Standard

Institutions should consistently apply pre-defined and published regulations covering all phases of the student “life cycle”, e.g. student admission, progression, recognition and certification.

Processes of information provision for online and e-learning students need not be significantly different from those of campus based students but there are aspects of the details of administration that may require modification to cater for populations that are not campus based.

There should be clear information available to students and other interested parties on the main aspects of the course: its size and level, subject content, relationship with other courses, mechanisms for dissemination of course materials, assignments, assessments and evaluation tests. Students should be made aware of the nature of online study and the demands it will place on them if they are integrating study with work or extensive family responsibilities. The regulations should be clear on the timing of study programmes highlighting essential assignment commitments. Provision of pre admission information should be accompanied by accessible advice services, diagnostic tests etc so that students opting to pursue online and e-learning programmes are able to make well informed decisions on their programmes of study.
Admission processes should not normally require student attendance at a campus for purely administrative reasons, administrative systems should be configured to allow online business transactions.

Student progression rules should be clearly presented and highlight any specific criteria applied to online programmes that differ from those associated with the institution’s conventional face to face provision programmes.

Institutions should ensure that qualifications gained through online programmes secure the same level of recognition by professional bodies and employers as that accorded to face to face programmes achieving the same learning outcomes.

**Teaching Staff**

**ESG Standard:**

Institutions should assure themselves of the competence of their teachers. They should apply fair and transparent processes for the recruitment and development of the staff.

General principles for staff competence, appointment and development apply equally irrespective of mode of delivery however there are particular challenges around acquisition and recognition of competences and skills associated with novel pedagogic approaches.

**Skills for e-learning**

The provision of support for staff in the pedagogy of e-learning is essential if e-learning is to be implemented as an integral component of institutional activity. The majority of academic staff will not have experienced e-learning during their own education and may not have received training in the pedagogic possibilities of e-learning. The development of early generations of e-learning programmes has been driven by enthusiasts but future institutional development should be based on involvement by the majority of academic staff. Institutions must foster an environment that encourages and supports the development of pedagogic skills and expertise amongst its staff. Recognition of these in its structures of reward and esteem is an important factor.

Staff needs to be supported in the development of the pedagogical, technical skills and methods that accompany and are necessary for e-learning.

Dispersed expertise within an institution may be focused by the formation of a real or "virtual" department within the institution charged with the responsibility for pedagogic development and their expertise made available to others involved in e-learning delivery via, for example, internal consultancy, secondment to development teams, training courses, seminars (real and virtual) and good practice guides.
If the institution adopts a structured approach to the professional induction of academic staff then the induction programmes should include the skills essential for the development and presentation of online programmes within their coverage.

Where there is a national requirement for academic staff to gain some form of professional certification in pedagogy the certification programmes should ideally encompass the skills for online teaching.

**Scholarship of online pedagogy**

Pedagogic development should be seen as a key activity for academic and student support staff within the institution and staff should enjoy an environment in which their efforts in this area are respected and acknowledged.

Staff activity planning processes should acknowledge the time required to develop and practice new pedagogic skills.

Tutorial and other support staff is encouraged to take part in pedagogic developments. Professional development seminars and symposia on pedagogic issues are organised (and well attended).

Internal and external publication on pedagogic issues related to e-learning is encouraged.

Internal secondments and cross-departmental working are used as mechanisms for sharing expertise in pedagogic techniques.

The experience of tutorial and other support staff is valued by the institution.

Student feedback is used extensively in review of pedagogic developments.

**Work Load Management**

The workload patterns associated with online programmes can differ significantly from those associated with traditional face to face provision. Typically online programmes demand greater preparation time associated with the acquisition and development of teaching materials, their installation within the VLE or other distribution systems. This front-loading of effort may be compensated for by lower levels of direct student contact time during the presentation phase but the temporal distribution of work load should be taken into account in institutional planning.

It must be recognised that there are learning curves associated with the introduction of new teaching methods. Obviously the learning curve is steep for staff during their first engagement with online learning activities but there is also learning associated with each and every module developed. The nature and patterns of student engagement with the module will become apparent during its initial presentation and stabilise in later presentations as teachers can anticipate behaviours. Thus the first presentation of a module will demand more time of academic staff in student support than later presentations when student behaviour can be anticipated.

Academics developing and presenting online programmes will in all probability work closely with staff from other departments, with pedagogic specialists, instructional designers, VLE specialists and administrators. These interactions may differ in both type and extent from those associated with face to face teaching hence allowance should be made for such engagement particularly during the early phases of implementation of online programmes.
These differing patterns of workload commitment should be understood by institutions and factored into workload calculations in order that staff do not experience undue pressure in engaging with pedagogic innovation.

**Reward**

The involvement of staff in e-learning development should be properly recognised and rewarded by the institution. This recognition and reward need to be integrated into mechanisms for promotion and career development.

It should be clear to staff that their inputs are valued by institutional and departmental leadership and that criteria for innovation in teaching exist and routinely applied in consideration of cases for promotion.

**Non Academic roles**

The development and presentation of e-learning/online learning programmes will generally require significant input from staff with pedagogic, design and technical expertise. These staff may work in direct collaboration with academics as integral members of programme development teams or alternatively provide targeted support as required. They may be employed by pedagogic centres to provide support across the institution or, increasingly, at department level as online learning becomes an integral part of departmental teaching programmes.

Development of career progression routes for these staff is important if these roles are seen as long term. Institutions may take the view that these support functions are an interim measure to be phased out once academic staff are adequately skilled. If this is the case then management of the transition should form part of institutional plans.

**Learning resources and student support**

**ESG Standard:**

Institutions should have appropriate funding for learning and teaching activities and ensure that adequate and readily accessible learning resources and student support are provided.

The ESG Guidelines refer to the changing nature of learning resources and student support as pedagogic practice moves towards student centred learning. Use of online and e-learning technique should be inherently student centred thus institutions should have well developed policy and practice and support their staff in utilisation of a diverse range of educational resources.

**OER Moocs**

It should be expected that institutions engaged in e-learning will have well developed policies and practices relating to the use of Open Educational Resources and the role that MOOCS might play in the institution’s strategy for innovation, outreach or internationalisation.

Open Educational Resources (OER) are digital materials offered freely and openly for use and reuse by educators and students. OER can be found through the large repositories that now exist, ranging from institutional projects such as MIT Open Courseware (ocw.mit.edu) to collaborative projects such as Connexions (cnx.org) and Jorum (www.jorum.ac.uk).
The intellectual property rights associated with OER (often one of the Creative Commons licences) usually allow material to be used without cost for non-commercial purposes and allow material to be freely reversioned and updated. However, some rights may still be reserved, most commonly a requirement that the attribution to the original author should be preserved. Rights must therefore be carefully tracked to ensure that the appropriate level of access is preserved and that authors are credited where appropriate.

A course designer could develop a course by picking existing OER components (and perhaps customising them as appropriate) rather than developing new material from scratch. The OER components might range from single images to more extensive learning objects containing learning objectives, content and assessment. The resulting e-learning material should be judged under the same quality criteria as new material or bought-in material. However, an OER obtained from a repository may already have some assurance attached to it. The repository itself may carry some weight of reputation or the 'brand' of an institution, user reviews and voting systems may offer recommendation, or the repository may offer a peer review stage prior to acceptance.

An important benefit of OER is that the licence to freely change material makes it possible to update and improve it, allowing high quality e-learning components to evolve as users improve content and offer it back to the OER community. Institutions should encourage and support staff engagement in OER communities and ensure that contributions to such communities are valued.

**Student support**

The student support needs for online and e-learning programmes may differ significantly from those associated with traditional face to face programmes. There will be differences in the nature of support needed and in the time and place of their provision. Students studying online have extensive experience of the use other online services, online banking, shopping, downloads of audio and video and will have high expectations on availability and ease of use. Provision of effective student support services may present a greater challenge for institutional quality assurance than programme design and development. Equally it is possibly unknown territory for QA Agencies.

General principles on access to student support are that support services should be accessible in the first instance via the student’s homepage or other entry route to the institution’s online learning system. Students should be provided with information about their specific courses and the range of generic services available.

Students are likely to be working to flexible schedules. Static information such as course specifications on web pages are always available but help desk and advisory services should also be provided at times appropriate to student need.

The institution should monitor the needs of their students in order to inform planning of support services for e-learners. Different student groups may display differing experience of relevant technologies and learning methods. Although younger students may appear to be ‘digital natives’ who are very experienced with technology, they will nevertheless need support in using technology to best effect for learning.

Rapid developments in ICT and software lead to rapid changes in prior experience that may have significant impact on student needs in a period as short as one or two years.
Academic Community Support:

Institutions should give careful consideration to how students studying through online programmes relate to the broader academic community of the institution. What are their rights, roles and responsibilities and how do these differ from those of students who are campus based? Is there a need for revision of university regulations to ensure that their opportunities for participation in the academic community are not restricted as a consequence of their mode of study.

Online social networking opportunities may be provided in order to build and support student communities. This may be achieved using the institution’s VLE or through external social networking sites as appropriate. Inevitably students will partition their participation between communities that are “official” and those that are “unofficial” student originated communities. Institutions should have in place codes of conduct relating to social network activity that protect both students and institution whilst aiming to preserve the free interchange of knowledge and opinion that characterises campus based student life.

Study Skills

E-learning may require students to acquire new skills or adopt new learning techniques. Students should be supported in the development and application of new skills and techniques through a range of mechanisms and services. They should also be supported in developing new approaches to their learning. For example to foster objectives of student-centred learning, students should be introduced to ideas of self-regulated, active and collaborative learning.

There are benefits associated with an institution-wide approach to study skills support. For example, as new software and communication systems become available, experience in their use can be disseminated broadly across the institution.

Students should be informed about the services available to help them to adapt or acquire new learning skills, and how to access these services.

Support may be provided through online resources, contact with tutors or mentors who have a specific responsibility to support a particular group of students, or contact with advisory services that may be generic or course specific.

Support should be given to develop the study skills of good academic practice in quoting and referencing the work of others. Helping students understand the issues surrounding plagiarism can result in better learning and reduce the burden to the institution of handling plagiarism issues.

Institutional responsibility for the development of support materials and services may rest with a central unit staffed with skilled advisors rather than provided by academic departments. However subject academics should have a high level or awareness of the services provided if students are to enjoy and integrated learning experience.
Non Academic support roles

Support from administrative and other non academic departments plays an important role in enabling effective online study.

Administrative support: The majority of administrative functions should be fulfilled online without the need for direct human intervention. Online systems should cater for: registration on programmes and courses; payments; study timetables; access to student records etc. All systems should operate at appropriate levels of security to ensure confidentiality and safety. Online guides to administrative systems should provide students with a clear indication of the services available and how to access them.

Students may require access to human intervention in aspects of administration when difficulties arise that are not catered for adequately by online systems. There should be mechanisms for appropriate levels of intervention, from routine error correction in records to personal support for major difficulties. In order to improve administrative processes, institutions should monitor the use made by students of access to their records and the occasions when human intervention is required.

Online library services

Institutions providing e-learning courses have a duty to ensure that all students can access the information sources necessary for successful completion of the course. The past decade has seen a transformation in the nature of library services with the majority of institutional libraries now providing comprehensive access to digital information sources.

In an e-learning context much of this can be built in to specific course materials, for example by providing a ‘classroom library’ or virtual reference service that provides a customised view of the online library containing relevant links and online databases. However, students may need access to additional sources which provide complementary or contrasting perspectives.

In this transition to digital collections the needs of students studying programmes online and off-campus may not have been fully addressed with anomalies existing regarding their access to certain resources which may be licensed by location or to users of campus networks. Institutions should ensure that such inconsistencies are eliminated.

The provision of library resources and any required training in their use is an institutional responsibility.

Resource and Study Centres: The primary target for e-learning should be to allow students to interact with course materials, library materials, tutors/mentors and fellow students online, irrespective of location. However, requirements for use of specialist equipment or learning materials, the nature of certain types of tutorial or seminar-type interactions, and the requirement for security of assessment practice may demand the attendance of students face-to-face.

The institution may therefore operate a network of study centres at which the functions listed above can take place. Pre-existing study centres may require adaptation to meet the needs of e-learning.
students, depending on the mode of delivery and whether students have online access via their own equipment.

The staff of study centres may be regarded by students as the public face of the university. Induction and training programmes should equip them for this key relationship role in addition to their primary functions. The study centre may also provide a focus for student community development.

**Technical Systems Support:** Effective operation of the institution’s online learning environment is the key component of technical support that affects students. Continuous availability should be the target.

As e-learning students are likely to adopt flexible study patterns, the technical infrastructure should operate to a 24x7 schedule. This has impact on the technical aspects of operation, (maintenance, upgrading, etc) and on the provision of help desk and other advisory services.

Students should be provided with access to a technical help-desk service. This service should cover both the technical aspects of the system and, wherever possible, any problems that students might encounter with the use of course specific software. Students should be aware of the nature of services available and the means of accessing them.

Ideally institutions should aim to provide fully functioning online systems 24 hours per day seven days per week over the learning period. Downtime for maintenance should be scheduled for times of lowest student demand rather than “outside normal office hours” time slots.

**Support for Support Staff:** The support services provided for online students may require the definition of new staff roles or significant change to roles of existing staff. The roles may include tutors, mentors, counsellors and help desk staff. These functions should be clearly defined in job descriptions and wherever possible career development and progression pathways established for these essential staff.

Adequate resource provision for these support functions should be built into institutional and programme plans. Through tracking demand and usage of services institutions should develop models and projections for future sustainable growth of their provision of services to online students.

**Information Management**

**ESG Standard:**

Institutions should ensure that they collect, analyse and use relevant information for the effective management of their programmes and other activities.

Effective management information systems are essential for conducting both the business and academic aspects of institutional activity. In business functions quality systems should implement standards and approaches to information management that would be expected in companies and public administration organisations of similar scale.
MIS

It is expected that institutions will have appropriate and well supported information systems in place that are managed to professional standards. The senior managers of these systems should be professionally qualified and experienced in relevant quality assurance processes. Senior Managers should ensure compliance with national and international standards in respect of data security and privacy advising on institutional policy in these matters.

National systems may require the reporting of specific data on institutional performance, eg student registrations, qualification numbers, systems should be configured to deliver such reports without requiring significant staff intervention.

MIS systems should be configured to enable staff to access information relevant to their roles and support should be available to enable staff to devise and access data reports that are most valuable to them.

Student access to their records of registration status, progress and achievement should be routinely available at all times and accessible through web interfaces rather than restricted campus based networks.

Access to information relevant to teachers and students should be integrated with use of the institution’s VLE system through a single login and id verification system.

Overall the MIS should serve the needs of the institution rather than shape or constrain its functioning as an teaching and research organisation.

VLE and Learning Analytics

The growth and mainstreaming of the use of e-learning and online learning has been facilitated by the near ubiquitous adoption of VLE systems as an essential component of institutional infrastructure. The same principles of professional management and quality assurance of service provision as apply to the business systems should also apply to the VLE. Academic staff and students should expect it to be well managed and available and their use of it supported through effective helpdesk and other services.

Use of the VLE will generate data that can be used for analysis of study patterns, monitor effectiveness of teaching material, student study locations, patterns of interaction between staff and students. The institution should have policies in place concerning the use of this data, students and staff should be aware of the policies and understand differentiation between personal and anonymous data collection and analysis.

Staff should be supported in the analysis and interpretation of VLE data. The institution’s pedagogic research/development division would be expected to play a lead role in this activity and lead on dissemination and sharing of information to support enhancement activities such as seminars, conferences and scholarly publication.

The structured environment of the Virtual Learning Environment (VLE) presents one dimension of e-learning but institutions also need to consider the much more unstructured environment provided by the Web. The topic of ‘learning analytics’ is one of growing interest as academics and others explore how learning takes place within online learning communities and social networks.
Engagement in this area will further enhance the institution’s capacity to adopt more student centred approaches to teaching and learning by better understanding the totality of the student learning experience.

Learning Analytics is currently best described as an emergent field but impact of technological change on student behaviours moves rapidly hence institutions seeking to improve and enhance online provision should be expected to have some level of engagement probably led by a pedagogic development unit.

Public Information

ESG Standard:

Institutions should publish information about their activities, including programmes, which is clear, accurate, objective, up-to date and readily accessible.

This standard demands little additional comment in relation to e-learning and online programmes other than the requirement that information should be available on line and readily accessible to students in all areas and markets in which the institution plans to operate. If its online programmes are intended to reach international audiences then information regarding the status and recognition of the programme in all relevant territories should be included in order that students are not misled on recognition or status of qualifications offered.

Ongoing Monitoring and review

ESG Standard:

Institutions should monitor and periodically review their programmes to ensure that they achieve the objectives set for them and respond to the needs of students and society. These reviews should lead to continuous improvement of the programme. Any action planned or taken as a result should be communicated to all those concerned.

Processes of ongoing monitoring and review are of particular importance in the early phases of institutional use of online and e-learning as departments and institutions gain in experience.

Contributions from pedagogic research units may be of particular value in the design of evaluation programmes. Such evaluations may be dependent on analysis of data on student study patterns collected via the VLE system in addition to more standard evaluations of student surveys and assessment performance patterns.

It is recommended that reviews are conducted more frequently than may be the case for established forms of classroom based programmes in order that both positive and negative aspects of provision offered can be identified and acted upon.

Staff workload patterns may show variation over time as they become more experienced in the management of online student cohorts, are better able to anticipate student behaviours and problems.
Student response to the overall online learning environment and the support services they receive is an important dimension that will cross departmental and the academic/administrative boundaries. All departments should be involved in the process and outcomes shared broadly.

The monitoring and review processes themselves should also be subject to review to ensure appropriateness and assist in mainstreaming and integration with existing processes.

Showcase studies provide examples of the benefits of planned monitoring and review processes and the importance of sharing experience of these widely across the institutions.

**Cyclical external quality assurance**

**ESG Standard:**

**Institutions should undergo external quality assurance in line with the ESG on a cyclical basis.**

Institutions should consult with the National Agency on any aspect of their online and e-learning provision which they consider may not be adequately covered in that agency’s guidance to institutions.

It is clearly important to all stakeholders that cyclical reviews are directed towards improvement and enhancement of provision and do not result in conflict due to lack of clarity of requirements on the part of either institution or agency. The maxim, If in doubt ask, should be invoked by all.

Some agencies provide specific guidance on their approach to the Assurance of technology enhanced teaching whilst others remain silent. The Showcase report provides exemplars of the positions adopted by national agencies and highlights references to online and e-learning matters in their published reports on institutional performance.

Review of reports on other institutions is a valuable aspect in the preparation for review.

Institutions should seek to work with national agencies in working groups and studies of new pedagogic approaches in order to share experience.

Participation of institutional staff with experience of online and e-learning in their National Agency’s review panels will assist all parties in processes of improvement and enhancement.
Conclusion

This Handbook aims to assist institutions in formulating their internal quality assurance processes associated online and e-learning in line with the guidelines presented in the ENQA European Standards and Guidelines document (to be ratified May 2015). Used in collaboration with national standards it will facilitate the integration of technology enhanced learning approaches within the mainstream of higher education provider all stakeholders with reassurance of equivalence in standards of outcome and learner experience irrespective of delivery mode, time and place of study. The associated Showcases documents demonstrate the practicality of integration of Quality Assurance of online and e-learning with that of presentational programmes and the positive outcomes reported in National Agency publications. The field of online learning is rich in sources of recorded evidence, its teaching materials, student use data, and the digital record of student interactions. It is hoped that this Handbook will encourage institutions to address the QA of their online developments in a positive manner and assist in the rapid advancement of delivery mode neutral quality assurance envisaged by the partners in this project.