The First dual-mode distance learning benchmarking club - report from Lund University, Sweden

Ossiannilsson, Ebba; Landgren, Lena

2011

The First dual-mode distance learning benchmarking club - report from Lund University, Sweden

Ebba Ossiannilsson och Lena Landgren

Ebba Ossiannilsson and Lena Landgren
Lund University, Sweden
2010

Ebba.Ossiannilsson@ced.lu.se
Center for Educational Development, Lund University, SE

Lena.Landgren@lub.lu.se
Library Head Office, Lund University, SE

Content

Summary

In 2009 Lund University was invited to participate in the international project the *First dual-mode distance learning benchmarking club*. From past experiences Lund University was asked to make a concordance between different benchmarking models and their criteria in relation to another widely used model, *Pick&Mix*. The task was also to suggest improvements of the *Pick&Mix* model and to suggest and include possible new criteria according to Lund University´s experiences of European benchmarking processes through the European Association of Distance Teaching Universities (EADTU) and the European Centre for Strategic Management of University´s (ESMU) as well as to the Swedish frame of references. This has gained international attention through the model on quality criteria for e-learning (*ELQ)* by the Swedish National Agency for Higher Education but also through the success of the Swedish Net University, 2002-2008.

In this report an account on the *ELQ*-model is given, together with a short introduction to the projects as such (EADTU:s *E-xcellence+*, ESMU:s *E-learning benchmarking exercise (ELBE)*, and the *First dual-mode distance learning benchmarking club*).

The working process by Lund University on the latter project is explained as a background to a discussion on an emerging conceptual framework. In addition short backgrounds to the current discourse and debate on e-learning and benchmarking of quality in higher education are given.

The results deal with areas found critical for development, planning, implementation and quality evaluation of e-learning. The study reflects on their significance in a wider learning context in the shape of an emerging conceptual framework. The various concepts of the framework clearly give expression to the meaning of education from a student's point of view and within students´ involvement. The framework highlights a boundless, personal and flexible education in a global and eco-sustainable world. The findings seem to closely follow the current discourse and debate in and for the 21st century.

Introduction

Lund University, Sweden, was invited to take part in the *First dual-mode distance learning benchmarking club* during 2009-2010 due partly to recent experiences from participating in two European benchmarking projects, *E-xcellence+*[1] of the European Association of Distance Teaching Universities (EADTU) and the *E-Learning Benchmarking Exercise (ELBE)*[2] of the European Centre for Strategic Management of Universities (ESMU), partly to the Swedish initiative on E-Learning Quality (*ELQ*) by the The Swedish National Agency for Higher Education (The Swedish National Agency for Higher Education 2008). Lund University´s reputation and recognition of e-learning and experiences from the Swedish Net University were also of importance and served as a background.

This is the report from the participation of Lund University in the *First dual-mode distance learning benchmarking club.* The report consists of a short background to benchmarking as a method for quality assurance and enhancement, followed by an outline of the project. The next part deals with Lund University´s experiences of the benchmarking projects mentioned above, followed by the working process and results from the *First dual-mode distance learning benchmarking club.*

Background to benchmarking as a method for quality assurance and enhancement

Quality development and evaluation make up crucial parts of the activities of educational institutions today, and benchmarking has become an increasingly common method used for performing quality work. However, benchmarking on e-learning in higher education is not so far frequent, even if benchmarking is a well-known method for quality enhancement.

Benchmarking deals with changes, but also with enhancement and successful implementation (Ossiannilsson 2010a, b, c). Moriarty (2008) defines the method as: *…an exemplar-driven teleological process operating within an organization with the objectives of intentionally changing an existing state of affairs into a superior state of affairs* (p. 30). Moriarty & Smallman (2009) further express it as follows: *The locus of benchmarking lies between the current and desirable states of affairs and contributes to the transformation process that realizes these improvements* (p. 484). The definition which is used by ESMU is expressed as: *Benchmarking is an internal organizational process which aims to improve the organization's performance by learning about possible improvements of its primary and/or support processes by looking at these processes in other, better-performing organizations* (van Vught *et al.* 2008a, p. 16).

Benchmarking initiatives are often conducted as self-evaluations, including systematic data and information gathering, from predefined benchmarks. The goals of benchmarking are to formulate together with others strengths and weaknesses and areas for enhancement (Ossiannilsson 2010a; van Vught *et al.* 2008a, b). The benefits can be expressed as they are defined by ESMU: *self-assess institution, better understand the process, measure and compare, discover new ideas, obtain data to support decision-making, set targets for improvement, strengthen institutional identity, enhance reputation, respond to national performance indicators and benchmarks* and *set new standards for the sector* (van Vught *et al.* 2008a).

That benchmarking is a generally accepted method for quality assurance and enhancement in higher education can be exemplified by the recently finalized 2-year project *Benchmarking in European Higher Education*. The project, financed by EU, was designed to support development and modernization and to

[1] EADTU, E-xcellence+, http://www.eadtu.nl/e-xcellenceplus/
[2] ESMU, Benchmarking e-learning in European universities, http://www.esmu.be/benchmarkinge-learning.html

make higher education attractive. Furthermore, the project aimed at attracting attention to the goals of the Lisbon and Bologna processes for higher education and lifelong learning (van Vught *et al.* 2008a, b).

Outline of the First dual-mode distance learning benchmarking club

The *First dual-mode distance learning benchmarking club,* the first international benchmarking club with a *blended learning* approach, was launched in 2009, but is conducted mainly in 2010. Lund University participates together with six other universities: University of Leicester (coordinator) and University of Liverpool, UK, University of Southern Queensland, AU, Massey University, NZ Thompson Rivers University, CA, and KTH, the Royal Institute of Technology, SE. Support for the project is partly funded by the UK agency JISC[3] under the JISC Curriculum Delivery programme via the University of Leicester, partly by the developers of *Pick&Mix*, Matic Media Ltd.

Benchmarking in this project has the *Pick&Mix* model as its point of departure, a well-known benchmarking method especially in UK, but also used in Australia. The method has recently been adapted to ongoing development of e-learning and examined by international expertise through the *Re.ViCa* project (Schreurs 2009), guaranteeing the high quality of the method.

The *Pick&Mix* model consists of almost one hundred benchmarks. The high amount gives flexibility, and universities can choose themselves which benchmarks they will consider. Eighteen (18) of those are however *critical success factors,* i.e. factors which are critical for success in e-learning (Appendix 1). Among those, 10 *key success* factors have been highlighted through the *Re.ViCa* project. They are as follows: *e-learning strategy*, *decisions on project, training*, *costs*, *technical support to staff*, *decisions on programmes*, *leadership in e-learning*, *market research*, *student understanding of system* and *student satisfaction* (Schreurs 2009). All benchmarks are valued according to six levels (1-6) and in going through the benchmarks, a coloured matrix is received (according to a traffic-light model). Through the matrix the *state of the art* of one's institution/department appears explicit.

The project aims at disseminating and implementing the *Pick&Mix* model. Participating universities will go through the benchmark process as such. Within this process generic and *critical success factors* will be explored. Three pieces of concordance work will be done. This is described as follows in the project plan from 2009:[4]
"1. A concordance will be generated between the Australian/New Zealand ACODE[5] system and *Pick&Mix*. This is seen as important for institutions in that region. The concordance facilitates the use of a common evidence base for both ACODE and *Pick&Mix* benchmarking.

2. Earlier work on lessons to be learned from the UK QAA[6] precepts in relation to e-learning (http://www.qaa.ac.uk/academicinfrastructure/CodeOfPractice/section2/appendix.asp) will be updated. This is seen as important for the UK – and a current commercial client of *Pick&Mix* is keen on this also. This work will feed into work being done for the QA-QE SIG[7] of the UK Higher Education Academy and in turn to the QAA. A similar correlation should be done, with the Swedish partners, on the correlation to the Swedish criteria for quality in e-learning.

3. Lund University is currently undertaking benchmarking using the E-xcellence system - which is popular in certain EU circles. Again, earlier work on the *Pick&Mix* to *E-xcellence* concordance will be updated with the help of Lund University."

[3]JISC, Joint Information Systems Committee, UK. JISC is an independent advisory body that works with further and higher education by providing strategic guidance, advice and opportunities to use ICT to support learning, teaching, research and administration, http://www.jisc.ac.uk/
[4] Bacsich, P. (October, 2009). Benchmarking for distance e-learning (unpublished).
[5] ACODE, Australasian council on open, distance and e-learning, http://www.acode.edu.au/
[6] QAA , Quality Assurance Agency for Higher Education, UK, http://www.qaa.ac.uk/
[7] Quality Assurance and Quality Enhancement in e-Learning (QA-QE), http://www.heacademy.ac.uk/

Based on the accumulated expertise in the field of benchmarking and with regard to the *ELQ* model of the Swedish National Agency for Higher Education, the purpose of Lund University´s participation is thus slightly wider and to some extent different from the others in the project. Lund University will:

1. benchmark, in accordance with the detailed criteria
2. consider the already defined and/or suggest any other *critical success factors*
3. based on experience and results from EADTU's *E-xcellence* + and ESMU's *ELBE* correlate *Pick&Mix* with the other models.

Experiences from Lund University on participating in benchmarking projects

Lund University has participated in benchmarking projects organized by ESMU since 2000. E-learning was the subject for benchmarking by ESMU in 2003, when Lund University also participated, and since some years Lund University is again involved in a number of projects dealing with benchmarking of e-learning as part of the action plan for quality assurance.

In 2007 a project was launched at Lund University aiming at develop international online master courses (Nilsson & Ossiannilsson 2008). The project was highlighted nationally by the Swedish National Agency for Higher Education and internationally by the European Association of Distance Teaching Universities (EADTU). At the same time a study on quality of work in e-learning was conducted by The Swedish National Agency for Higher Education, which resulted in a report proposing that e-learning should be included in any evaluation of higher education. The report also presented a model consisting of ten quality criteria for e-learning, *E-Learning Quality*, *ELQ* (The Swedish National Agency for Higher Education 2008).

Thus, in 2008 Lund University became appointed by The Swedish National Agency for Higher Education as a pilot university in EADTU's benchmarking project *E-xcellence+* with the aim to investigate whether e-learning courses can be quality controlled in the same way as so-called traditional campus education (Ubachs 2009). Lund University contributed also to the project by being a traditional and research intensive university and in testing the model at program level (Ossiannilsson & Landgren 2010a, b, c).

This in turn led to the participation in 2009 in another European benchmarking project, ESMU's *E-Learning Benchmarking Exercise* (*ELBE*), at the initiative of the University of Southern Denmark and in cooperation with EADTU (Comba *et al.* 2010*;* Ossiannilsson & Landgren 2010a, b, c; Williams & Rotheram 2010).

The incentives to participate in the two projects were partly to get a picture of the situation of e-learning at Lund University, partly to get ideas and overview of how these conditions appear in a European perspective. Further intentions were to take part in the collaborative learning process, inherent in the benchmarking method, and to obtain evidence for implementing possible changes and improvements, which is another purpose of the benchmarking method as such.

In the following, the quality model *ELQ* by the Swedish National Agency for Higher Education is shortly presented. Then the two projects *E-xcellence+* and *ELBE* are described (Ossiannilsson & Landgren 2010a, b).

E-Learning Quality Model, ELQ

The study of quality in e-learning of The Swedish National Agency for Higher Education emphasizes the importance of an increase of knowledge about how quality should be evaluated in the context of regular quality assurance system. E-learning should thus be a natural part of any evaluation. Through analysis of the development, research and networking on an international basis, the Swedish National Agency for Higher Education has developed an evaluation model, the *E-Learning Quality* (*ELQ*). The model includes ten quality aspects (which in turn include a number of indicators). The quality aspects are:

material/content, structure/virtual environment, communication, cooperation and interactivity, student assessment, flexibility and adaptability, support (student and staff), staff qualification, vision and institutional leadership, resource allocation, and *the holistic and process aspect* (The Swedish National Agency for Higher Education 2008, p. 7).

The report states that e-learning must be assessed from a holistic perspective, i.e. all ten aspects mentioned above must be considered equal and taken into account. Another conclusion is that if a national authority/organization shall evaluate e-learning, quality indicators are not enough. The evaluating authority will have to develop and adapt its own working methods and ensure its own competency. Thus, the report states that *existing methods of quality assessment need to be adapted, quality aspects for e-learning need to be integrated into existing quality assurance systems, internal competence and the provision of information in e-learning area need to be guaranteed and internal working methods need to be adapted to the special conditions which apply for the assessment of boundless education* (The Swedish National Agency for Higher Education 2008, p. 10).

E-xcellence+

EADTU coordinated in the early 2000's the *E-xcellence* project as part of the EU programme *e-learning 2004*. The project, implemented in cooperation with ENQA and UNESCO, brought together experience of lifelong and flexible learning from thirteen countries in Europe, as well as expertise on quality assurance. Benchmarking criteria regarding management, products, and services were developed with specific focus on three priority areas of progress; accessibility, flexibility and interactiveness. The *E-xcellence+* project is the implementation phase of the *E-xcellence* and can be described as a reference point for education, change and innovation of e-learning. The project broadens the implementation of and provides feedback on the model at a local, national and European level (Ubachs 2009).

The benchmarking model *E-xcellence+* includes two tools, Quick Scan and Full Assessment. Quick Scan is a self-evaluation tool to be completed online, preferably as teamwork within the department. It generates feedback directly. Full Assessment means that the evidence-based self-assessment is peer reviewed, often including a site visit. If the criteria are considered being of excellence level, an *E-xcellence Associates label* is issued.

The benchmarking criteria are grouped into three categories: *management, products,* and *services*. These criteria cover institutional, pedagogical, technical, ethical, and management aspects of e-learning. The three categories include six areas. The category *management* includes strategic planning and development at both institutional and program level. The category *products* includes curriculum/syllabus design, course design and course delivery. Finally, the category *service* includes teacher and staff support as well as student support. All in all, a total of 33 benchmarks with indicators, including description of what can be regarded as excellence level, are used.

During the project the two selected master programs at Lund University were processed through all the benchmark criteria. In addition, at management level, i.e. at infrastructural units in various ways responsible for the common resources of e-learning at Lund University (Human Resources/Centre for Educational Development, the Library Head Office, Lund University Computer Center, Planning Division, Evaluation Unit, International Relations, Department of Communication, Student Division and the Student Union), benchmarking processes were also conducted.

A positive outcome of the *E-xcellence+* benchmarking exercise at Lund University was that the two master programmes, *Lund University Master's Program in Geographical Information Systems* (LUMA-GIS) and *Master of Environmental Management and Policy* (IIIEE), were the first European programmes of higher education to be awarded the *E-xcellence Associates Label*.[8] This label focuses on development and innovation in the three defined and prioritized areas of progress in higher education referred to above, i.e. accessibility, flexibility, and interactiveness. In addition, the *E-xcellence Associates Label* emphasises a field which has recently emerged as crucial in this context, namely personalisation (i.e personalisation of learning at different levels). By obtaining the *E-xcellence Associates Label* a quality controlled e-learning

[8] EADTU E-xcellence Associates label, http://www.eadtu.nl/e-xcellencelabel/

education is provided, which is in the forefront of development and innovation.

E-Learning Benchmarking Exercise (ELBE)

Regarding ESMU's *E-Learning Benchmarking Exercise* (*ELBE*), the initiative was to identify best practices in e-learning through collaborative learning processes within the partnership and to formulate action plans for development and improvement. The project combined ESMU's collaborative benchmarking practices with EADTU's more individual approach. Lund University participated together with eight other European universities, namely Copenhagen, Aarhus, Bologna, Kuopio, Oulu, Porto, and Latvia Southern University of Denmark (co-ordinator) (Williams & Rotheram 2010).

At Lund University, ESMU's *ELBE* was conducted only at management level and not at program level. The project organized two workshops to which also experts in e-learning attended.

The project was based on self-assessment by EADTU's online tools, described above. During the first workshop the self-assessments were examined. This resulted in a review and updating of some benchmarks and indicators, resulting in stronger focus on *blended learning*, approaches to learning and teaching, personalization of learning resources, and library resources.

Thereafter, the Full Assessment was conducted by all participants. Documents, links, etc., used to substantiate the responses in relation to benchmarks and indicators, were published in a project database. The material collected by Lund University was based on what was submitted for *E-xcellence+,* but it was updated and revised in accordance with *ELBE*'s direction.

The contents of the Full Assessment formed the basis for a second workshop. For this, all institutions prepared action plans based on their own strategies and policies as well as on received feedback and on examples of good practices from the other participating institutions. The workshop discussed key success factors but also potential critical areas and development areas in relation to the various action plans.

The working process within the First dual-mode distance learning bench-marking club

In our work we have had as point of departure the current debate and discourse on e-learning/*blended learning*. As the meaning of the concept e-learning/*blended learning* is rather complex it has to be seen in a wider context. Thus, we commence with a short presentation of the concept.

The concept of e-learning

During the last ten years the European Commission has worked in a strategic way with several initiatives and *white papers* to develop, enhance and implement e-learning. ICT is still highlighted as one of four main areas in the frame of The European Commission's Lifelong Learning Programme 2007-2013.

Already in 2001 e-learning was defined as: …*the use of new multimedia technologies and the Internet to improve the quality of learning by facilitating access to resources and services as well as remote exchanges and collaboration* (COM 2001 p. 2).

However, several scholars in the field of e-learning emphasise that e-learning is not easily defined in a digital world and in a digital knowledge society (Bates 2010a; Bonk 2009; Ossiannilsson 2010a, b, c). A more important question is rather about driving forces and innovations in e-learning. Educators need to change their essential educational processes. Methods must change because our core technology is no longer the book (Batson 2010). E-learning has to be *embedded, beyond* and *boundless* (Batson 2010; Jaldemark 2010; Johnson 2010), i.e. e-learning has to be integrated, innovative and without limits.

McLouglin & Lee (2008) stress that challenges of e-learning in a networked society concern mainly the meaning of the three P:s, *personalisation, participation,* and *productivity*. The authors state that those

dimensions are crucial for successful e-learning, i.e. the individual´s prerequisite, motives and motivation (*personalisation*), the individual´s own participation in the learning process (*participation*) and the individual as co-producer in the e-learning process (*productivity),* i.e. "Students are both producers and consumers ("*prosumer*s") of knowledge, ideas, and artifacts" (McLoughlin & Lee 2008, p.14).

Often e-learning and *blended learning* are seen as synonymous, this was the case in the *ELBE* project. The definition of e-learning, which was the starting point in the *ELBE* project had a blended perspective as well: *E-learning is covering a wide set of applications and pedagogical processes supported by ICT learning, such as web-based learning, computer-based learning, virtual classrooms and digital collaboration with an added value of increased accessibility, flexibility and interactiveness* (unpublished observations, *ELBE* workshop, May 2009).

As the definition above states, e-learning gives added value of *accessibility, flexibility* and *interactiveness.* Accessibility and flexibility mean possibilities for students to study and share learning resources regardless of time, space and place, but also that specific needs of students with various disabilities, such as for example dyslexia, can be met. Interactiveness concerns interaction with material/course resources as well as interaction between fellow students but also between students and teachers (Moore 1989, 1997).

Current discourse and debate within e-learning/*blended learning* emphasize the rapid evolution of ICT and its impact on learning. There are discussions about first and second order effects, i.e. how new technologies are used for immediate gain, which in its turn leads to longer-term impact on society in terms of changes in thinking and of behaviour (Bonk 2009; Nygren & Larsson 2010). For learning and teaching there are challenges that require various forms of learning resources to meet individuals' different learning styles and learning on demand.

The understanding of the individual's context as an important part of her/his learning is discussed in a recent thesis by Jaldemark (2010). The study shows that individuals' contexts are not always taken into account. Students and teachers often experience learning situations in different ways. The student's learning environment includes personal circumstances of physical, geographical, economic and social character. It is not only learning platforms used in the web-based training which constitute the learning environment. Thus, one cannot ignore the individuals' context, when online courses are planned, implemented and quality evaluated. It is important to meet students where they are, i.e. to take into account students' natural work environment, especially the Internet (Bonk 2009). Further, it is important that universities can prepare students for future professional roles and active citizenship. In the near future internationalisation, sustainability, employability and virtual mobility will account to a greater extent than today, and e-learning is among the driving forces.

Benchmarking of Lund University according to Pick&Mix

The first task was to conduct the benchmarking according to *Pick&Mix.* This was done with the experiences from and evidences already submitted for *E-xcellence+* and *ELBE* in mind. The approximately 100 benchmarks were gone through and discussed, based on the value for Lund University. The benchmarks were desktop analysed according to fulfillment for Lund University. From the results from task two (2), see below we benchmarked within the matrix. Different colors corresponding to different scores were received. For Lund University the colored carpet became mainly light green, e.g. Lund University scored mainly five (5) or six (6) (Appendix 2).

Suggestion of other critical success factors

The second task was to define and/or suggest other *critical success factors.* Thus, all eighteen (18) benchmarks from the *Pick&Mix* model relevant for Lund University and the Swedish context were gone through. We came up with a result of three (3) remaining cores (out of the 18). Then, out of all the remaining *Pick&Mix* benchmarks (the appr. 100), seventeen (17) new core criteria were chosen since they represent for Lund University important areas. Finally eight (8) totally new critical success factors were added. They are *productivity, participation, transparency, interactivity, constructive alignment, services for*

students and staff, democratic processes and *legal security*. In total our revised model ended up with 28 benchmarks.

Thus, in summary, the various steps of this work can be described as follows:

1. We valued the 18 core criteria, how important those were from our experiences and from a Swedish and Lund University perspective, and according to this we made a selection resulting in 3 cores.
2. We found that some of the other benchmarks (out of the appr. 100) in the *Pick&Mix* model were of importance from our experiences and from a Swedish and Lund University perspective, so those were added (17 in all).
3. In addition, based on our experiences and from a Swedish and Lund University perspective, some new critical success factors (8) were added, which we think are of importance according to the current discourse and debate.

As a result the revised model consists of in total 28 success factors (Table 1).

Table 1. List of suggested success factors through the project the *First dual mode distance learning benchmarking club*.

Remaining core criteria from the *Pick&Mix* model (3)	**Benchmarks selected from the *Pick&Mix* model (17)**	**Added critical success factors suggested from Lund University (8)**
Market Research	Accessibility	Constructive Alignment
Reliability	Benchmarking	Democratic Processes
Strategic Management (former Management Style)	Computer Based Assessment	Interactiveness
	Eco-Sustainability	Legal Security
	Employability	Participation
	e-Portfolios	Productivity
	Information Literacy of Students	Services; Staff and Students
	Integration	Transparency
	Learning Material (former Learning Objects)	
	Library Services and e-Resources	
	Organizational Learning	
	Pedagogy	
	Personalisation	
	Plagiarism (former Plagiarism Avoidance)	
	Quality Assurance	
	Staff Recognition and Reward	
	Widening Participation	

Below the meaning of the various suggested benchmarks from table 1 are described more in detail, together with our interpretations and suggestions, following the three headings column by column; *remaining core criteria from the Pick &Mix model*, *benchmarks selected from the Pick&Mix model* and *added critical success factors suggested from Lund University*. The benchmarks below each heading are in alphabethical order. In some cases we refer to current discourse regarding successful e-learning.

Remaining core criteria from the Pick&Mix model

Market Research

Employability and entrepreneurship are concepts that are important in a higher education context according to the Bologna process. *Market research* is also important for innovation and might include this aspect.

We interpret *Market Research* as validation and consideration of the development of society in large.

Reliability

This is self-evident in an e-learning context. It regards students´ rights, security, usability, student satisfaction and also student motivation.

We suggest that this benchmark (item 53) includes also benchmark *Usability* (item 4) as well as benchmark *Security* (item 60).

Strategic Management
Management constitutes one of the concepts in *Excellence+* and in *ELBE.* Strategic management and the institutions´ visions permeat answers on other benchmarks to a high extent (Aceto 2010; Bates 2010a, b; Higgins 2008; de Jonge 2010; The Swedish National Agency for Higher Education 2008).

We suggest that this benchmark is named *Strategic Management*, as it also has to do with visions, cfr. the *ELQ* model.

Selected from existing benchmarks from the Pick&Mix model

Accessibility
Accessibility is one of the core criteria in EADTU:s *E-xcellence Associates label*. However, we would like to extend the meaning to free supply and demand, as well as to adaptation to impaired functions and handicap.

Thus, we suggest that benchmark *Disadvantaged* (item 71) will be included in this benchmark.

Benchmarking
Benchmarking is a method for quality assurance and enhancement for higher education institutions. In an international context this is crucial both internally and for networking. It should be embedded in strategy plans for universities.

Based on our experiences of participating in and conducting three benchmark initiatives, we consider this benchmark very important for quality enhancement, cfr. *Quality Assurance*.

Computer Based Assessment
This benchmark seems to be basic in e-learning today and could therefore be cancelled as it is included in and a cornerstone of all e-learning programs.

In case it will remain we suggest that this benchmark and the following benchmark *Computer Managed Assessment* (item 81) will be just one, named *Computer Based Assessment*.

Eco-Sustainability
This benchmark seems to be basic in global perspectives, not at least in education, today (United Nations Decade of Education for Sustainable Development, 2005-2014). Universities are among the driving forces together with other actors in society (UNESCO).[9] E-learning use to be seen as one reason for sustainability. Sustainability is also relevant in the context of reusable learning objects, open educational resources (OER) etc.

Employability
The term refers to an individual's possibility and capability of gaining and maintaining employment as well as obtaining new employment if necessary. The term gained importance with the Bologna process and is now a key concept when discussing the goals of higher education. Cfr. *Market Research*

e-Portfolios
This benchmark has to deal with communication, transparency, students´ rights, alumni, usability and employability (McLoughlin & Lee 2008).

[9] UNESCO, http://www.unesco.org/en/esd/

Information Literacy of Students
This benchmark is self-evident. It is furthermore part of key skills according to EU (digital skills). Information literacy is also about employability and innovation in and for society in the 21st century.

Integration
This benchmark deals with if e-learning/*blended learning* is embedded in the educational processes, organization, learning objectives, assessments, etc. (Flate Paulsson 2010).

Learning Material (former Learning Objects)
Open Educational Resources (OER) is of large importance for various reasons in education of today, for example regarding sustainable development, and academic professionalism. Knowledge sharing and collaboration is crucial in a global educational world. Universities, teachers and students benefit all from OER (Atkins, Brown & Hammond 2007; Hylén 2007; OECD 2007).

We suggest however that this benchmark and the following benchmark *Open Educational resources* (item 97) will be just one and named *Learning Material*.

Library Services and e-Resources
This benchmark is self-evident. It is one of the really critical issues for boundless education and personalisation (Bonk 2009; Jaldemark 2010). It also deals with transparency (Flate Paulsson 2010).

When the benchmarks from *E-xcellence+* were revised in the benchmark exercise within *ELBE*, this was highlighted from Lund University.

Organisational Learning
When benchmarking is done, universities ought to consider making changes and implementations from the process and the results. Good examples from single departments and courses might lead to implementation in other areas.

Pedagogy
This benchmark relates to the lecturers IT maturity (Bonk 2009), constructive alignment (Biggs 2003; LU, EQ11), IT-pedagogy, but also Scholarship of Teaching and Learning (Trigwell and Shale 2004).

We suggest that benchmarks *Pedagogy Research* (item 61), *Research Out* (item 68), *Researchers In* (item 69), and *Dissemination Internal* (item 82) will be included in this benchmark.

Personalisation
Personalisation is one of the excellence criteria from *E-xcellence+*. The current discourse on e-learning focuses to a high extent on personalisation and this concept is highlighted for success concerning e-learning (Bonk 2009; McLoughlin & Lee 2008; Johnson *et al.* 2010; Nygren & Larson 2008; Ossiannilsson & Landgren 2010 a, b). Jaldemark (2010) emphasises that boundless education is not possible without a high level of personalisation. Wheeler (2010) stresses personalisation in terms of when the individual is her/his own personal learning environment (PLE) i.e. the importance of taking into consideration the individuals´ social, economic and cultural environment and the ownership of ones learning.

We suggest that this benchmark has a student centred approach and includes concepts as learner choice, learner agency, customization, self-regulation and management. We suggest also that benchmark *Student Understanding of System* (item 91) and *Student Satisfaction* (item 94) will be included in this benchmark.

Plagiarism (former Plagiarism Avoidance)
Plagiarism avoidance (item 64) and plagiarism are two aspects of the same phenomenon, thus it has to be seen in a holistic perspective. Plagiarism is especially important and has attracted attention with the increased use of internet resources and open access.

We suggest that this benchmark and the following benchmark *Plagiarism Detection* (item 65) will be just one and named *Plagiarism*.

Quality Assurance
Quality assurance and quality enhancement are self-evident concepts in higher education today. From our perspective it is most important to always take the student´s point of view in all reflections, discussions and evaluations on quality. The concept of Scholarship of Teaching and Learning and constructive alignment are crucial for quality assurance as well as the holistic educational approach. Cfr. benchmark *Benchmarking*.

Staff Recognition and Reward
It is of importance to encourage staff recognition and reward concerning innovative learning styles and activities, and striving for the excellence criteria in teaching and learning in the courses offered by the university and not just to trust enthusiasts. However, enthusiasts must get recognition and be paid attention to as good examples.

We suggest that benchmark *Staff Experience* (item 83) will be included in this one.

Widening Participation
The concept emphasizes and includes internationalization perspectives, lifelong learning strategies and to open up towards new target groups and also to keep in contact with alumni. Diversity (cultural, social, gender, etc.) and cross-disciplinary collaboration is also included in this concept. Widening participation addresses the large discrepancies in the take-up of higher education opportunities between different social groups. Under-representation is connected with broader issues of equity and social inclusion (EUA 2008). Widening participation concerns even ensuring equality of opportunity for disabled students, mature students, women and men, and all ethnic groups (HEFCE 2009).

Added critical success factors suggested from Lund University

Constructive alignment
Constructive alignment includes the connection between expected learning outcomes, assessment and results and the education process as well as evaluation (Biggs 2003; LU EQ11).

In a coming evaluation project at Lund University EQ11, constructive alignment is described as follows: *choice of methods for teaching and examination, in-depth learning, decision making structures and resource allocation and student cooperation.*[10] The concept is highly emphasised at Lund University and in a Swedish context.

Democratic processes
Student´s rights and perspectives are always taken into account in higher education in Sweden.[11] As an example the students are automatically represented in various boards and their perspectives are visible in strategic documents (Strålman 2010).

We suggest that this critical success factor will include students´ rights, involvement in boards and processes etc.

Interactiveness
Interactiveness is one of the excellence criteria in *E-xcellence+*. It deals with interactivity regarding three aspects; with the material, with peer students and with teachers (Moore 1989 1997).

We suggest that this critical success factor has a student-centred approach and includes concepts as learner choice, learner agency, customization, self-regulation and management (McLoughlin & Lee 2008).

[10] http://www5.lu.se/o.o.i.s/4311
[11] LU, Strategic plan 2007-2011, http://www.lu.se/upload/LUPDF/Om_LU/Strategicplan_2007_2011.pdf

Legal security
Cfr. *Democratic processes* above.

In a Swedish context the legal security is very strong and has to be taken into account in all matters like it is expressed in Lund University policy for the equal treatment of students 2006-2010:

"Activities at Lund University are founded on gender equality and on striving for ethnic and social diversity. The equal worth of all people is recognized, and the University is proactively against racism and xenophobia.

The University's activities are conducted in ways that allow each individual to develop on the basis of their personal capacities, independently of irrelevant distinctions of gender, ethnic or social background, religion or other belief, sexual orientation and/or functional disability.[12]

Participation
Participation is one of the three P:s for successful e-learning (McLoughlin & Lee 2008).

We suggest that this critical success factor includes concepts as communication, collaboration, connectivity and community (McLoughlin & Lee, 2008, p. 16). Flate Paulson (2010), the current President of EDEN, emphasises co-operation as one success factor, which is close to participation.

Productivity
Productivity is one of the three P:s for successful e-learning and is described in similar ways in the discourse. As was mentioned above, according to McLoughlin & Lee (2008) students of today are both producers and consumers of knowledge, ideas, and artifacts, so called "*prosumer*s" (p. 14).

We suggest that this critical success factor includes concepts as contribution to knowledge, generativity and creativity and innovation (McLoughlin & Lee2008 p.16).

Services; staff and students
This critical success factor is crucial in an e-learning/*blended learning* context of today. It includes for example services 7/24/365.

We suggest that this critical success factor includes technical issues, support and training (both technical and pedagogical).

Transparency
With transparency we mean total and full transparency. The concept is also close to accessibility, cfr. above.

Transparency was described by the E-*xcellence+* site visit experts as a success factor within the investigated programs at Lund University. The opinion was raised that transparency is so important that it should even be relevant as quality indicator for Campus courses. Transparency is also highlighted by Flate Paulsson (2010).

[12] Lund University's policy for the equal treatment of students 2006-2010, http://www.lu.se/upload/LUPDF/Om_LU/Policy_Equal_Treatment_students.doc

The concordance of the different benchmarking models

The third task, mentioned above, was to correlate the different benchmark models, i.e. *E-xcellence+*, *ELBE* and *Pix&Mix* but also to the ten quality concepts according to *ELQ* and to make a concordance. The concordance was made visible through a mindmap (Appendix 3) and a chart (Appendix 4). In the following the mindmap and the chart will be described.

The concepts in the the mindmap will be explained from left to right. Blue (x1-x9) means criteria clustred to illustrate important quality issues for Lund University, followed by benchmarks (with numbers) from the *Pick&Mix* model relevant according to (x1-x9). Sometimes we have even clustred the *Pick&Mix* benchmarks. Turquoise means the benchmark headings (with the indicators) from *E-xcellence+* and *ELBE.* In those models there are six groups, but the one concerning staff and student support is divided in two by us, in order to correlate more clearly with all the *Pick&Mix* benchmarks. Yellow means quality aspects from the *ELQ* model (The Swedish National Agency for Higher Education 2008).

It became explicit that some of the *Pick&Mix* benchmarks could be clustered to wider concepts. This can be exemplified with the concept of quality. In our concordance the concept *Quality* cover *Pick &Mix* benchmarks *Benchmarking* (item 98), *Quality enhancement* (item 20), *Quality assurance* (item 17) and *Evaluation* (item 14). Regarding quality there is concordance with all indicators according to *E-xcellence+* and *ELBE*, i.e. strategic management, curriculum, design, course design, course delivery, and staff and student support. In this aspect there is also concordance with the *ELQ* model.

For further clarity we also made a colored chart with five columns (Appendix 4): The benchmark areas (the six areas with 33 benchmarks) of EADTU:s *E-xcellence+* and ESMU:s *ELBE*, the quality aspects of the Swedish National Agency for Higher Education, the *Pick&Mix* core criteria (18) and finally the suggested critical success areas from Lund University. The colors show a rough estimation of concordance between the various models. There is a certain concordance which is obvious. However, several success areas are explicit among the Lund University suggestions and represent another kind of vocabulary.

During the process all benchmarks were consciously discussed, reflected on, related and validated. Overall the concordance between the models was quite high. However, different ways to express phenomena were seen, possibly partly due to cultural and language differences. It also became obvious that the vocabulary in *Pick&Mix* tends to be somewhat old-fashioned, and at least does not appear to fit the Swedish context on e-learning/*blended learning*.

In confirming and trying to be creative and innovative in the process of working with the concordance of the benchmarking models, the current discourse and debate regarding e-learning has permeated the reflections and validations.

Observations from the project the First dual-mode distance learning benchmarking club

As stated above, through the discourse and debate regarding e-learning some of the current benchmarks in the *Pick&Mix* model appeared to be too detailed and also to some extent somewhat old-fashioned. They also have a more technical approach, rather than student centered in their expressions and not corresponding to the current terminology in studies on e-learning of today.

In the following, all three categories of our revised and suggested benchmarks model (Table 1 above) will be commented on (corresponding to task 2, mentioned above). Firstly, it has to be said that some of the current benchmarks of *Pick&Mix* are too self-evident. That is the reason why some benchmarks easily could be cancelled, such as for example *Valid LMS*. Regarding the category *remaining core criteria*, those three (3) benchmarks are also in some way obvious, but on the other hand they need to be emphasised. This is especially valid for the benchmark *Management Style*, which we, however, chose to rename S*trategic Management*. In the *E-xcellence+* and in the *ELBE* projects, as well as in the current discourse and

debate, this area is crucial and very much of importance whether successful e-learning could be reached, maintained and developed according to quality assurance and enhancement.

For the category *selected benchmarks from the existing list* (17) those are of importance, not at least from a student perspective, as they concern for example library services, personalisation, issues on pedagogy, Open Educational Resources (OER) and other learning materials and teachers´ competences and skills. Finally, the eight (8) *added critical success factors* have through experiences, comparisons of the benchmarking models and the current discourse and debate in the field of e-learning appeared obvious for successful e-learning and boundless education. They can be considered as part of an emerging conceptual framework on successful e-learning, not at least from students' points of view and involvement (see below) (Ossiannilsson & Landgren 2010a, b).

A tangible result of the work carried out so far is the notion that a contextual perspective on all aspects of e-learning is of paramount importance and that the complexity is significant. The ongoing discourse and debate on e-learning also emphasises the importance of taking into account a holistic thinking and the complexity of e-learning. A holistic approach in this context means that all included benchmarks need to be seen together, that they influence and give consistency to each other. Among others Higgins *et al*. (2008) stress the complexity of strategic areas as important; structure, resourcing, decision-making, collaborating, outsourcing and selecting technologies.

In connection with the project the *First dual-mode distance learning benchmarking club* it has also been identified how the ongoing discourse and debate affect how *critical success factors* and *key success factors* can be identified. As stated above, certain benchmarks in the *Pick&Mix* model do not sufficiently correspond to current terminology in the e-learning area and are too limited in their context.

The EU funded project Learnovation has recently published the report *Vision for Learning in Europe in 2025* (Aceto *et al*. 2010). The purpose of the project was to examine how learning is changing thanks to information and communications technology (ICT) and how such learning in turn favours innovation. The report discusses the future of learning in an innovation-oriented perspective. Proposals for urgent measures to be taken in order to achieve positive change in higher education were presented. These relate to lifelong learning and implementation of student-centered learning. They also stresses quality and virtual mobility. Further, the needs for research on strategic integration of innovative learning and assessment, as well as new structures for quality assessment of higher education were stressed. Bates (2010a) presents a framework on how higher education should relate to integration of ICT. The study was based on eleven universities in the U.S. and in Europe. Similar areas that we encounter in the benchmarking models and the current discourse were also found by him.

Personalisation is, as mentioned above, one of the success factors for receiving the *E-xcellence Associates label* of EADTU. Wheeler (2010) extends somewhat the meaning of personalisation and emphasises personalisation in terms of when the individual is her/his own personal learning environment (PLE). For higher education this interpretation will lead to challenges on how education needs to be reconstructed. The discourse shows clearly another emerging paradigm for higher education in order to meet those demands, which is very much focused on personalisation, attractiveness and learning on demand in a lifelong learning context.

An emerging conceptual framework

Throughout our work and often exemplified in the current discourse and debate, certain concepts on e-learning/*blended learning* have become explicit. Even though the terminology might vary, the content seems to be similar. The frequency and the constant appearance of those concepts and their meaning constitute a foundation for formulating an emerging conceptual framework regarding quality assurance of e-learning in higher education (Ossiannilsson & Landgren 2010a, b, c).

Already four excellence criteria have been stated by EADTU through the *E-xcellence+* project, e.g. *accessibility*, *flexibility*, *interactiveness* and *personalisation*. Those concepts were also applied in the benchmarking project by ESMU *(ELBE)* and thereby confirmed as crucial. Personalisation is also pointed out as crucial for quality in e-learning by McLoughlin & Lee (2008) together with *participation* and

productivity forming *the three P:s pedagogy for the networked society.* Like EADTU Flate Paulsson (2010) emphasises flexibility, but also *co-operation*, being close to participation. He also stresses *transparency* as a third factor for success in e-learning. All those concepts together as listed in Table 1 above might be seen as forming an emerging contextual framework for quality in e-learning in higher education (Ossiannilsson & Landgren 2010a, b, c).

The various concepts discussed above clearly give expression to the meaning of education from a student's points of view and within students´ involvement. It has recently been stated by Jaldemark (2010), among others, that in order to succeed and to reach the demands of students of today a *boundless education* must be strived for. E-learning/*blended learning* need to be embedded and beyond in all higher education. *Eco-Sustainability* seems to be basic in a *global perspective* today and therefore crucial in a society of the 21st century. It is crucial that universities consider the individual and her/his situation in all its complexity and this must be done in a holistic perspective.

Conclusion

The work with the *First dual mode distance learning benchmarking club* including the three tasks assigned to Lund University has been an interesting but knowledge demanding task. A humble approach according to the current debate and discourse on e-learning in higher education in and for the 21st century is necessary when values, suggestions and definitions on benchmarks are made. We have accomplished the task with this in mind.

Working with the first task, doing benchmarking according to the detailed criteria by *Pick &Mix* conducted and based on evidence from the two other projects (*E-excellence+* and *ELBE*), was quite hard since many of the *Pick&Mix* benchmarks were rather narrow-minded and since the language was somewhat old-fashioned. From a Swedish democracy and student focused perspective many critical success factors were lacking and we experienced many times cultural differences regarding higher education.

The result from the benchmarking through the *Pick&Mix model* for Lund University showed high scores (mainly 5 and 6). This is a gratifying result which hopefully will be used, reflected on and disseminated in further work throughout the University.

Doing the second and third task, to suggest eventually new benchmarks and to do the concordance, some of the problems, just described above, became clear. Going through the various benchmarking models a lot has been learnt on different approaches. Working with the concordance of the models has deepened the understanding of the importance of a holistic and contextual approach to e-learning and that current research and discourse ought to influence issues of benchmarking e-learning to a higher degree. During the processes as such it has been obvious that benchmarks have to be seen more from a student perspective and students´ involvement and not as until now from more technical points of view and from university management levels. Although it has become explicit that strategic management, vision and leadership are crucial (Bates 2010a, b), even those aspects have to be seen from the perspectives of students, teachers and universities.

Additionally, during the concordance process it was found that similar issues were expressed, but with differences in expressions regarding both languages and interpretations. Also cultural influences appeared. It became obvious, not at least from the current discourse and debate on e-learning, that another paradigm ought to prevail in and for the 21st century. As stated above, a student perspective and student involvement has to permeate benchmarks and indicators. Additionally, more contextual concepts have to be included, as suggested above, i.e. success factors as *personalisation, interactiveness, flexibility, accessibility, participation, productivity, transparency, students' rights and democracy* issues. As suggested by Jaldemark (2010), the meaning of a boundless education needs to be taken into consideration and to be implemented in institutions of higher education. E-learning/*blended learning* and the use of new technology, social media and Open Educational Resources (OER) will open totally new ways of

education, and due to that universities need to go through structural and innovative changes (Bates 2010c; Bonk 2010; De Jonghe 2010; Ossiannilsson 2010c; Ossiannilsson & Landgren 2010a; Robinson 2010).

De Jonghe (2010), as many others, stresses that "*successful e-learning indeed requires new organizational and pedagogical models"*. She refers to the fact that traditional universities of today have so complex missions and are rather anxious to prevail the physical Campus as such, that this sometimes is in conflict with boundless education. Kolowich (2010) raises questions on what is the mission for Universities in the 21st century: are we striving for a local or global education? He argues for the latter, and for that a revolution is needed.

In addition the educational and pedagogical culture of an institution is of highest importance if e-learning/blended learning will be developed according to what is considered today as critical areas, for example an embedded and boundless education with a strong student perspective and involvement. In order to achieve this the institutions´ visions and strategies but also the everyday work need to be permeated by common values.

A conclusion from our current study is that a revolution actually is on its way. Networking, globalization, sustainability, students´ involvement, boundless education, the full meaning of the concept when *students are their own personal learning environment*, and perspectives of lifelong learning will be some of the leading stars in this process.

References

Aceto, S., Dondi, C. & Nascimbeni, F. (2010) Vision for learning in Europe in 2025. *e-learning paper, 18.*

Atkins, D.E., Brown J. S. & Hammond, A.L. (2007) *A Review of the Open Educational Resources (OER) Movement: Achievements, Challenges, and New Opportunities* Report to the William and Flora Hewlett Foundation.

Bates, T. (2010a, February 11) *How well has your institution integrated technology?* Retrieved 100211from http://www.tonybates.ca/2010/02/11/how-well-has-your-institution-integrated-technology/

Bates, T. (2010b, June 11) *Strategic thinking about e-learning.* Retrieved 100617 from http://www.tonybates.ca/2010/06/11/strategic-thinking-about-e-learning/?utm_source=feedburner&utm_medium=email&utm_campaign=Feed%3A+tonybates+%28Tony+Bates%29.

Bates, T. (2010c, June 18) *Evolution or revolution?* Retrieved 100621from http://www.tonybates.ca/2010/06/18/evolution-or-revolution/?utm_source=feedburner&utm_medium=email&utm_campaign=Feed%3A+tonybates+%28Tony+Bates%29.

Batson, T. (2010) As we may learn. Revisiting Bush. *Campus Technology.* 02/03/10

Bonk, C., J. (2009) *The world is open: How web technology is revolutionizing education*. San Francisco: Jossey-Bass.

COM (2001) *The e-learning action plan. Designing tomorrow´s education*. Bryssel: Commission of the European Communities. Brussels.

Comba, V.E., Ossiannilsson, E., Landgren, L., *et al.* (2010) A benchmarking exercise for quality blended learning. A challenge for European Universities in the 21st century. *EADTU Annual Conference, 27-29 September 2010*, Zermatt, Switzerland (submitted).

De Jonghe, A.-M. (2010) *Are traditional universities ready for real innovation in teaching and learning?* Position Paper. Brussels. Retrieved 100729 from www.efquel.org.

EUA, (2008) *European Universities´ Charter on Lifelong Learning.* Brussels: EUA.

Flate Paulsen, M. (2010a) *Announcement new President of EDEN*. Retrieved 100616 from http://www.icde.org/en/icde_news/New+President+of+EDEN.b7C_wlrI5y.ips.

HEFCE. (2009) *Enhancing Learning and Teaching Through the Use of Technology. A Revised Approach to HEFCE's Strategy for eLearning. (no.2. 2009/12). Bristol: HEFCE.*

Higgins, A. Prebble, T. & Suddaby, S. (2008). *Taking the lead: Strategic management for e-Learning.* Wellington, NZ: Ministry of Education *AKO* Aotearoa. National Centre for Tertiary Teaching Excellence. Retrieved 100131 from http://akoaotearoa.ac.nz/download/ng/file/group-194/n1481-taking-the-lead-executive-summary.pdf.

Hylén, J. (2007) *Open Educational Resources: Opportunities and Challenges*. Retrieved 100905 from http://pascal.iseg.ut.pt~ssantos/Blog_Recursos_Varios.pdf

Jaldemark, J. (2010) *Participation in a boundless activity. Computer-mediated communication in Swedish higher education.* Thesis, Umeå University, Department of Pedagogy.

Johnson, L. Levine, A., Smith, R. & Stone, S. (2010) *The Horizon Report*. Austin, Texas: The New Media Consortium.

Kolowich, S. (2010) Buying local, online. *Inside Higher Education*, July 23.

LU, EQ11. (2010) *EQ11- Education Quality 2011.* Retrieved 100923 from http://www5.lu.se/o.o.i.s/4311.

McLoughlin, C. & Lee, M.J.W. (2008) The three P´s pedagogy for the networked society: Personalisation, participation and productivity. *International Journal of Teaching and Learning in Higher Education* 20, 10-27.

Moore, M. G. (1989) Three types of interaction. *American Journal of Distance Education* 3, 1-7.

Moore, M. (1997) Theory of transactional distance. I D. Keegan (Ed.). *Theoretical principles of distance education* (pp. 22-38). London: Routledge.

Moriarty, J.P. (2008) *A theory of benchmarking*. Theses, Lincoln University, Department of Business Management, Law and Marketing.

Moriarty, J.P. & Smallman, C. (2009) En Route to a theory on benchmarking. *Benchmarking: An International Journal* 16, 484-503.

Nilsson, J-O. & Ossiannilsson, E. (2008) *Projekt: Nätbaserad utbildning och internationalisering. Slutrapport*. Lunds Universitet (in Swedish).

Nygren, E. & Larsson, A. (2010, 25 February) Vår tids studentrevolt är historiskt dramatisk. *Newsmill* (in Swedish).

OECD (2007) *Giving knowledge for free: The emergence of open educational resources.* Retrieved 100923 from http://learn.creativecommons.org/wp-content/uploads/2008/04/38654317.pdf.

Ossiannilsson, E. (2010a) Benchmarking on e-Learning in universities: Impacts and values, European perspectives. *European Journal of International Management* (in press).

Ossiannilsson, E. (2010b) European experiences on the E-xcellence benchmarking initiative by EADTU. *European Journal. International Management* (submitted).

Ossiannilsson, E. (2010c) Benchmarking on e-learning in higher education. Experiences from EADTU E-xcellence+ project and ESMU:s e-learning benchmarking exercise. In ENQA (Ed.), *Quality Assurance of E-learning*. Helsinki: ENQA (in press).

Ossiannilsson, E. & Landgren, L. (2010a) *Benchmarking on e-learning at Lund University – experiences and critical concepts for quality assurance.* Lund: Lund University (in Swedish, but with an extended summary in English).

Ossiannilsson, E. & Landgren, L. (2010c) *Quality in e-learning – a conceptual framework based on experiences from three international benchmarking projects* (submitted).

Ossiannilsson, E. & Landgren, L. (2010b) International benchmarking of e-learning at Lund University, Sweden - aims and results. *EADTU Annual Conference, 27-29 September 2010*, Zermatt, SZ, (submitted).

Robinson, K. (2010, February) Bring on the learning revolution! (Presentation). *Tedtalk.*

Schreurs, B. (Ed.). (2009) Critical Success Factors. In *Reviewing the virtual campus phenomenon. The rise of large-scale e-Learning initiatives worldwide* (pp. 59-84). Leuven: EuroPACE ivzw.

Strålman, C. (2010) *Partners or Counterparts? - Student Involvement in Management and Quality Assurance at Lund University.* EUA. SciTechEurope, Brussels, Belgium (23 November 2010).

The Swedish National Agency for Higher Education (2008) *E-learning quality: Aspects and criteria*. (Högskoleverkets rapportserie 2008:11R). Solna: Swedish National Agency for Higher Education.

Trigwell, K., & Shale, S. (2004) Student learning and the scholarship of university teaching. *Studies in Higher Education, 29*(4), 523–526.

Ubachs, G. (Ed.). (2009) *Quality assessment for e-Learning a benchmarking approach.* Heerlen: EADTU.

van Vught, F., Brandenburg, U. & Burquel, N. (Eds). (2008a) *A practical guide. Benchmarking in European higher education*. Brussels: ESMU.

van Vught, F., Brandenburg, U. & Burquel, N. (Eds.). (2008b) *Benchmarking in European higher education. Findings of a two-year EU funded project.* Brussels: ESMU.

Wheeler, S. (2010) What so good about open Educational Resources? (slideshare). *UNESCO:s OER conference, 3 May 2010,* Namibia.

Williams, K. & Rotheram, B. (2010) *Report benchmarking exercise on e-learning*. ESMU: Brussels.

Appendix 1

Core criteria, *Pick&Mix* (Bacsich, October, 2009).

Code	*Criterion name*	*Criterion level 5 statement*
04	Usability	All systems usable, with internal evidence to back this up.
06	e-Learning Strategy	Regularly updated e-Learning Strategy, integrated with Learning and Teaching Strategy and all related strategies (e.g. Distance Learning, if relevant).
07	Decisions on Projects	Effective decision-making for e-learning projects across the whole institution, including variations when justified.
10	Training	All staff trained in VLE use, appropriate to job type – and retrained when needed.
12	Costs	A fit for purpose costing system is used in all departments for costs of e-learning.
13	Planning Annually	Integrated annual planning process for e-learning integrated with overall course planning.
16	Technical Support to Staff	All staff engaged in the e-learning process have "nearby" fast-response technical support.
19	Decisions on Programmes	There is effective decision-making for e-learning programmes across the whole institution, including variations when justified.
22	Leadership in e-Learning	The capability of leaders to make decisions regarding e-learning is fully developed at departmental and institutional level.
29	Management Style	The overall institutional management style is appropriate to manage its mix of educational and business activities
35	Relationship Management Upwards	The institution has effective processes designed to achieve high formal and informal credibility with relevant government and public agencies overseeing it.
53	Reliability	The e-learning system is as reliable as the main systems students and staff are used to from their wider experience as students and citizens,
58	Market Research	Market research done centrally and in or on behalf of all departments, and aware of e-learning aspects; updated annually or prior to major programme planning.
60	Security	A system where security breaches are known not to occur yet which allows staff and students to carry out their authorised duties easily and efficiently.
91	Student Understanding of System	Students have good understanding of the rules governing assignment submission, feedback, plagiarism, costs, attendance, etc and always act on them.
92	Student Help Desk	Help Desk is deemed as best practice.
94	Student Satisfaction	Frequent (ideally annual) Student Satisfaction survey which explicitly addresses the main e-learning issues of relevance to students.

Criterion 06 is paired with a doppelganger criterion 06d

06d	Distance Learning Strategy	Regularly updated Distance Learning Strategy, integrated with Learning and Teaching Strategy and all related strategies (e.g. e-Learning, if relevant).

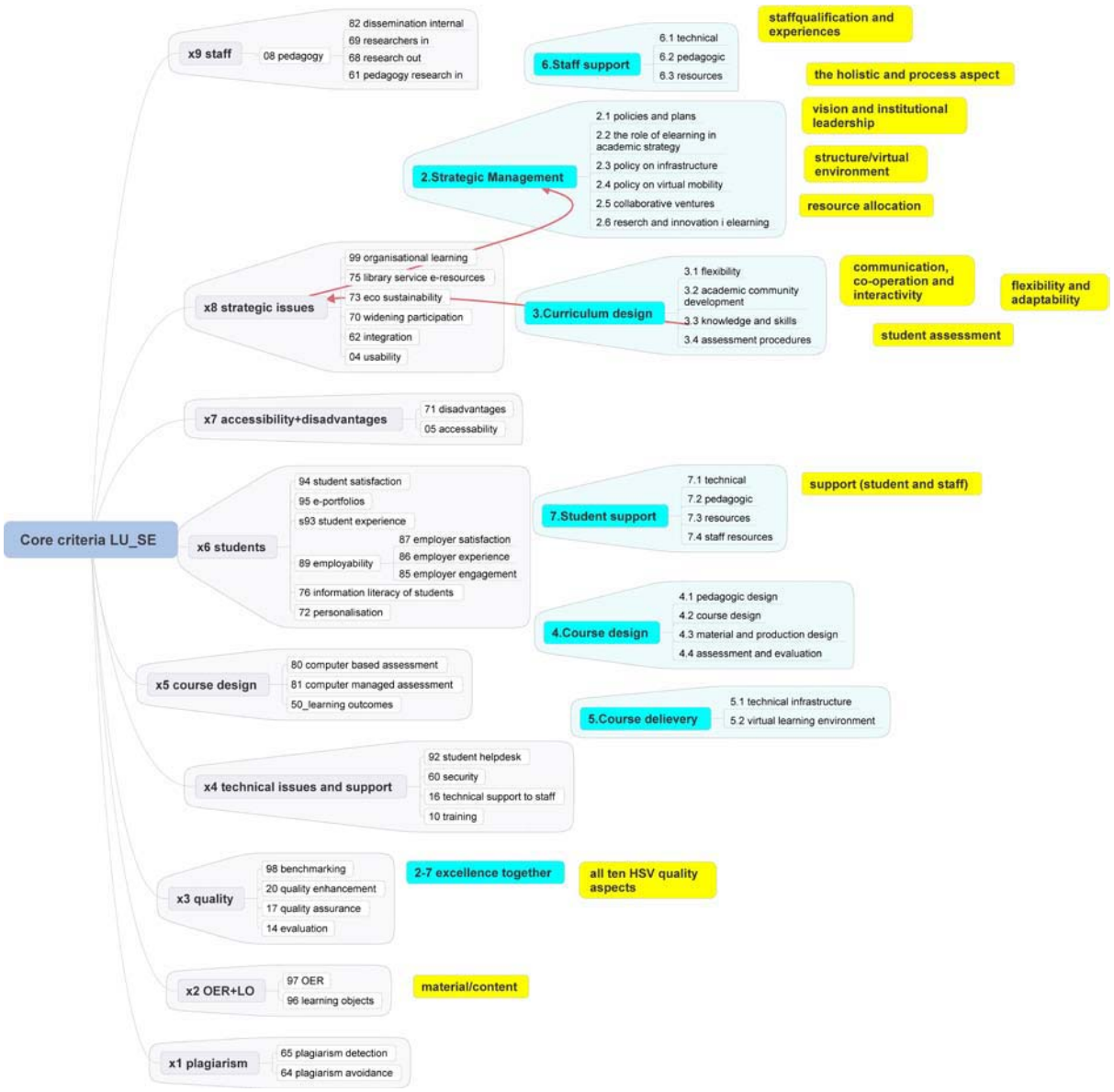
Conducted benchmark with the *Pick&Mix* model for Lund University, scores and comments.

Criterion name	***Lund***	***Commentary on score***
Accessibility	3	We suggest that BM Disadvantaged (71) will be included in this BM
Pedagogy	5	We suggest that BM:s Pedagogy research in (61), Research out (68), Researchers in (69), Dissemination internal (82) will be included in this BM
Quality Assurance	6	
Staff Recognition and Reward	3	We suggest that BM (83) Staff Experience will be included in this one
Management Style	0	This BM is not mentioned in the beta version, for this reason it is difficult to reply. We suggest that this BM is named just *Management*
Reliability	6	We suggest that this (53) BM includes BM (4) Usability as well as BM (60) Security
Market Research	5	We interpret Market research as validation and consideration on the external development, etc.
Integration	4	
Plagiarism Avoidance	5	We suggest that this (64) and the following (65) BM will be just one, named *Plagiarism*
Widening Participation	5	
Personalisation	5	We suggest that this BM has a student centred approach and includes concepts as learner choice, learner agency, customization, self-regulation and management. We suggest also that BM:s (91 and 94) Student understanding of system and Student satisfaction will be included in this BM
Eco-Sustainability	5	

Library Services e-Resources	6	
Information Literacy of Students	3	
Computer Based Assessment	5	We suggest that this (80) and the following (81) BM will be just one, named *Computer Based Assessment*
Employability	5	
e-Portfolios	2	
Learning Objects	5	Sector leadership (level 6) is not understood by us. We suggest that this (96) BM and the following (97) BM Open Educational Resources will be just one and named *Learning Material*
Benchmarking	6	
Organisational Learning	5	
Lund issues (not all are current Pick&Mix criteria)		
Productivity	5	We suggest that this BM includes concepts as learner-created content, contribution to knowledge, generativity and creativity and innovation
Participation	5	We suggest that this BM includes concepts as communication, collaboration, connectivity and community
Transparency	5	Total transparency
Interactivity	5	We suggest that this BM has a student centred approach and includes concepts as learner choice, learner agency, customization, self-regulation and management
Constructive alignement	5	We suggest that this BM includes the connection between expected LO, assessment and results and the education process as well as evaluation BM (14)

Services; staff and students	5	
Democratic processes	6	We suggest that this BM includes technical issues, support and training
Legal security	6	We suggest that this BM will include legal security from students´ point of view

Appendix 3



Mindmap of the concordance benchmarking items. Blue means core criteria for LU (xnr), including benchmarks from the *Pick&Mix* model (clustred). Turquoise means the benchmarks headings from *E-xcellence* and *ELBE.* Yellow means quality aspects from *ELQ (*HSV*)* (Ossiannilsson & Landgren 2010a).

				Appendix 4
Benchmarking _models				
EADTU_E-xcellence+	**ESMU_ELBE**	**NAHE**	**Pick&Mix**	**LU suggested critical success factors**
Strategic Management	Strategic Manageme	Material/content	Usability	Accessibility
Curriculum design	Curriculum design	Structure/virtual environment	eLearning Strategy	Computer Based Assessment
Course design	Course design	Communication, cooperation and interacti	Decision on Projects	Constructive Alignment
Course delivery	Course delivery	Student assessment	Training	Democratic Processes
Staff support	Staff support	Flexibility and adaptability	Costs	Eco-Sustainability
Student support	Student support	Support (student and staff)	Planning annually	Employability
		Staff qualifications and experience	Technical Support to Staff	ePortfolios
		Vision and institutional leadership	Decision on Programmes	Information Literacy of Students
		Resource allocation	Leadership in eLearning	Integration
		The holistic and process aspects	Management Style	Interactiveness
			Relationship Management Upwar	Learning Material
			Reliability	Legal Security
			Market Research	Library Services and e-Resources
			Security	Market Research
			Student Understanding of System	Organisational Learning
			Student Help Desk	Participation
			Student Satisfaction	Pedagogy
			Distance eLearning Strategy	Personalisation
				Plagiarism
				Productivity
				Quality Assurance
The columns above represent from left to right the six areas (with 33 benchmarks)				Reliability
of EADTU:s *E-xcellence+* and ESMU:s *ELBE*, the quality aspects of the Swedish				Services; Staff and Students
National Agency for Higher Education, the *Pick&Mix* core criteria (18) and finally the				Staff Recognition and Reward
suggested critical success areas from Lund University. The colors show a rough				Strategic Management
estimation of concordance between the various models. As can be seen, certain new				Transparency
critical success areas (in white) are suggested from Lund University.				Widening Participation