Quality in Blended Learning

Work package 02 of the project
Blended Learning Quality-Concepts Optimized for Adult Education

Quality Criteria in Blended Learning

Focusing on the Learners Needs

Multilateral Grundtvig Project

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Quality Criteria in Blended Learning

1. Introduction

This document includes the result of the research work combined with the summary of the workshops at the Quality in Blended Learning Conference 2014. Furthermore, the document is enhanced by contributions coming from the consortium's members as well as from other sources. The document provides all quality criteria that will taught in the IST training course, which is going to be a result of this project.

2. Quality Assurance

With **quality assurance**, we mean planned and systematic activities to fulfill the quality requirements for the Blended Learning courses.

With **quality management**, we mean the organization of all activities and tasks needed to maintain a desired level of excellence. The consortium defines the **level of excellence** either by standards or – in this document – by quality criteria. It is a main emphasis in that project to define the quality criteria focusing – as far as possible – on the learner's needs.

3. Quality Fields

There are five different classes of quality criteria based on learners' needs: Institution quality, the enrollment in a course, the course development (structure, description …), the Learning Environment and finally the assessment/self-validation.
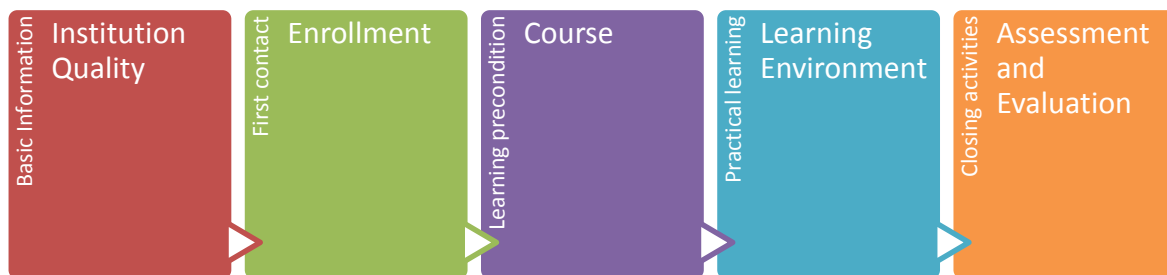
Figure 1: Five classes of main quality criteria

It is important to acknowledge that quality of a learning process is not something that is delivered to a learner by a course provider but rather constitutes a process of co-production between the learner and the learning-environment. The organizational aspects are mainly researched and the currently used norms (like ISO) cover the quality fields of the course environment.

Furthermore, the learners' needs should be an issue as well. This paper summarizes the main aspects of quality fields from the learner's view.

The next table summarizes the details and quality issues of the five quality fields.

Institution Quality	Enrollment	Course	Learning Environment	Assessment, Evaluation and Validation

• Administration
  ○ Technical Administration
  ○ Program Administration
• Documentation
• Resources of the institution / Course provider
  ○ Technical
  ○ Human
  ○ Financial
• Teachers/Trainers
  ○ ICT Skills
  ○ Didactic Skills
• Instructional Design
	• Course information
	  ○ Pre-Knowledge
	  ○ ICT Skills
	  ○ Structure of the course
	• Enrollment procedure
	  ○ Registration
	  ○ Handling
	  ○ Access to software, materials, …
		• Course development
		• Instructional design
		• Documentation of the course
		• Get to know the tutor(s)/teacher(s) and the other learners
		• Well known course structure and (necessary) resources
		• Use of technology
			• Getting students engaged
			• Maintaining engagement
			• Re-engaging students who drift away or fail to engage
			• Technical Learning Environment
			• Additional issues
			• Student suport
			• Tutorial support
			• Learning platform
				• Planning and Definition
				• Assessment execution
				• Evaluation criteria (course provider's view as well as learner's view)
				• Validation of the course (learner's view)

Table 1: Overview of the details for the five quality fields

3.1. Quality of the Institution

The learner has to trust the institution and to feel sure that the teaching institution will undertake everything to satisfy the learner's needs.

An institution offering the Blended Learning course focusing on learners' needs must have defined visions and values for the organization, must be experienced in teaching, provide a well-developed organization and offer a policy to support the learners best.

Here is a list of miscellaneous aspects (mainly regulated by ISO or similar norms) which are important for the learner:

- Administration in the institution
    - Technical Administration
    - Program Administration
- Documentation
  (Documentation Control, Course, Materials, Reports …)
- Resources of the institution / Course provider
    - Technical
    - Human
    - Financial
- Teachers/Trainers
    - ICT Skills
    - Didactic Skills
- Instructional Design

3.2. Enrollment

The enrollment contains two different items that are crucial for learners: information about the course and the practical handling of the enrollment.

- Course information
    - Pre-Knowledge
    - ICT Skills
    - Structure of the course (timetable, estimated workload, assessment rules, …)
    - Course objectives and intended learning outcomes are clearly articulated and the online course design reflects these.
- Enrollment procedure
    - Registration
      Where to place - How to define?
    - Handling
    - Access to software, materials, …

3.3. Course

The course quality can be seen from the course organizers view as well as from the learner's. Jung and Latchem (2007) found that most institutions apply the same quality criteria for e-learning (and

Blended Learning) as for the other modes of delivery[1]. These criteria will satisfy the learner's needs only partially.

Figure 2: Typical Course

The workshop results defined the quality criteria for the course itself as follows:

- **Documentation**
  Documentation Control, Course, Materials, Reports
  - Syllabi are clear, easy to navigate, and error-free
  - Clear course schedule
  - due dates for assignments
  - course objectives;
  - intended learning outcomes;
  - For courses in foreign language: Simple language (without jargons and unexplained acronyms)
- **Get to know the tutor(s)/teacher(s) and the other learners**
- **Well known course structure**
- **Splitting the content** (assignment to the face-to-face and the online teaching)
- Course design includes well-defined face-to-face and online phases to satisfy the course objectives and achieve intended learning outcomes.
- Courses take advantage of the **benefits** and **opportunities** of both classroom teaching (face-to-face meetings) and the online environment offers.
  - **Face to face**
    meetings with instructors
    option for practical group work including presentations
    Individual trainer-learner sessions
  - **Online**
    Information and communication technologies are used to enhance interaction. Student-to-student, student-to-content, and course organizer-to-student interaction are enhanced by taking advantage of a variety of technologies, which may include:
    Discussion boards
    Chat rooms
    Mass emails to class members
    Streaming audio and/or video and relevant multimedia applications
    Instant messaging
    Blogs
    Wikis
    Learning diaries

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[1] Jung, I., & Latchem, C. (2007). Assuring quality in Asian open and distance learning. *Open Learning, 22*(3), 235-250.

- Learning styles are considered in the pedagogical and technological design of the course to meet best the learners' needs.
- Course activities are used to foster interaction and a sense of community. These activities may include:
  - Participation in discussions (F2F or in course online boards)
  - Real and virtual group activities (large and small groups)
  - Debates (real or virtual in a forum)
  - Student presentations (maybe with a portfolio system)

3.4. Learning Environment and Learning Phase

In Blended Learning Courses the learning environment describes the face to face phase as well as the distance learning phase. From the UNESCO comes an interesting definition for learning environment: Learning takes place in multiple settings and the learning environment can be structured or unstructured and the learning in different environments can complement each other.[2]

The study from Rohana Kamaruddin, Nor Rashidah Zainal, Zaidi Mohd Aminuddin, Kamaruzaman Jusoff about the "Quality of Learning Environment and Academic Performance from a Student's Perception"[3] determined that the learning environment affects the students' learning outcome. Therefore, the learning environment plays a crucial role in the learning process.

3.4.1. Getting students engaged[4]

Capturing student attention at the start of the course has the biggest impact on the retention of students. Two major types of strategies were identified as being important:

- **Primers for getting student attention: Curiosity, relevance**
  The literature identifies two possible approaches: curiosity and relevance. Students experience curiosity when they become aware of a gap in their knowledge and are motivated to find the answer. One interesting aspect of curiosity is that it grows as knowledge grows, which suggests that teachers may need to prime curiosity early in a course. When students see a subject or topic as having personal relevance they are more likely to experience an optimal level of arousal for learning. "

- **Social presence and belonging: Teacher enthusiasm, immediacy and an inclusive environment**
  The social context plays an important role in encouraging student engagement. Students who feel as a part of the class and a part of the subject discipline are less likely to feel alienated or isolated and are consequently more likely to become engaged. Teachers, particularly in the online environment, are an important aspect of social presence. Impersonal environments are more likely to alienate students.
  Teacher immediacy – a sense of the presence of the teacher – is reassuring to students.

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[2] Unesco: Education, from: http://www.unesco.org/new/en/education/themes/strengthening-education-systems/quality-framework/core-resources/learning-environment/ [3/14/2014]

[3] International Journal of Business and Management, Vol 4, No 4 (2009), p171

[4] Lynn M Jeffrey, John Milne, Gordon Suddaby and Andrew Higgins, Strategies for engaging learners in a blended environment, Massey University (2012)

3.4.2. Maintaining engagement

Maintaining student engagement through the course requires the following six strategies:

- **Clear content structure**

  When students start a new course most of the material will be uncharted territory for them. The constants they expect in a course are a clear course outline that includes the content structure and other organizational features. Students become very disgruntled with disorganized courses and changes to the expected programme.

- **Clear, unambiguous instructions and guidelines**

  Students are intensely interested in assessment instructions and guidelines. They may experience high levels of anxiety associated with this part of the course, which increases the need for clarity in these matters.

- **Challenging tasks**

  Challenging tasks are those that make the student stretch to their limits of performance. Learning happens when students make an effort and the greater the effort, the greater the sense of achievement and motivation. Students are not motivated when given high marks for simple tasks, but nor are they motivated when the task is far beyond their ability.

- **Authentic tasks**

  Students are further motivated when they engage in tasks that they perceive as preparing them for the 'real world'. They understand that effort now has a later benefit. Transfer of learning occurs when learning tasks are structurally similar to real world tasks.

- **Timely feedback**

  The weight of evidence strongly suggests that in most circumstances immediate feedback is more effective than delayed feedback. Immediate feedback allows students to correct errors quickly, making learning more efficient.

- **Elaborated feedback**

  Studies consistently report that highly specific feedback that elaborates on the ways students can improve their performance results in better learning.

3.4.3. Re-engaging students who drift away or fail to engage

In most courses, a proportion of students will procrastinate at the start of the course or stop engaging, usually at key points such as assessment. The literature identifies two critical strategies for re-capturing the engagement of these students:

- **Monitoring and early identification**

  Early identification through monitoring student engagement is essential to identify disengaged students. The earlier the identification, the greater the chance of success. Ideally, this should start in the first week. Learning management systems such as Blackboard and Moodle make this a very simple process. Taking rolls at class is also recommended. Students who are performing poorly are also at risk of dropping out and should be monitored.

- **Personal contact and negotiated conditions for re-engagement**

  Having identified students who are not engaged, the most effective strategy for re-engaging is personal contact with the student by the teacher. A personal email to each student is one simple option. Follow-up contact for students who do not respond initially is also important.

Such contact is most effective when the teacher works with the student to provide help and support for problems the student may have.

3.4.4. Preconditions for the students

Students must be well prepared for the participation at the course. Some preconditions are

- Students are familiar with and comfortable with the pace, rhythms, and learning objectives of the online class and can manage the switching situation (from F2F to online)
- Students actively contribute to the learning community in a collegial manner both F2F and online
- Students expect feedback, participation, and communication with their trainers/teachers and students in the online class
- Students are open for the new teaching environment

3.4.5. Media based environments - Technical Learning Environment

With the advance in Web 2.0 technologies and the popularity of social networking on the web, educators have started to see a radical evolution in education. Students – especially younger learners - are used to Web 2.0 technologies and expect these in their learning environment. Some of the Web 2.0 building blocks, such as blogs and wikis, can be used easily and successfully in the teaching environment for Blended Learning courses.
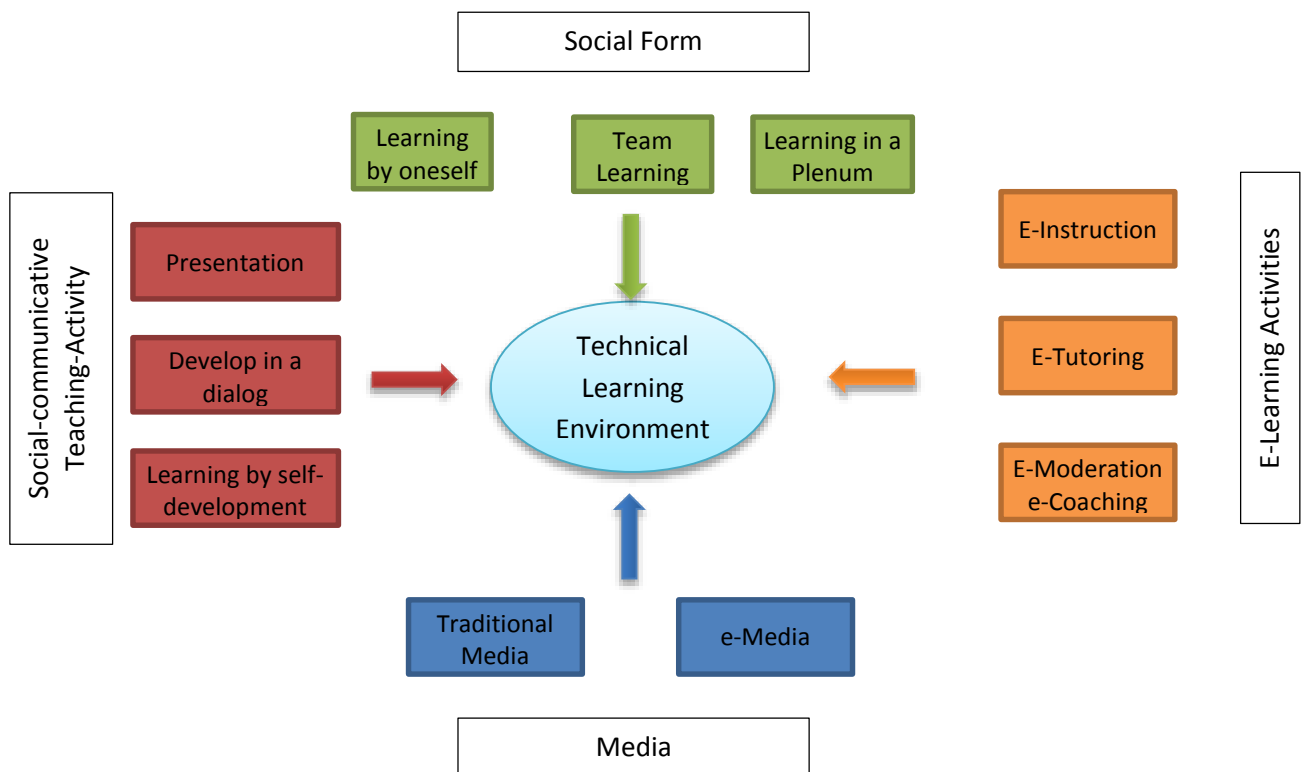

Figure 3: Source: Modules for the development of media-based learning environments[5]

- **Teaching Activities**

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[5] Eulers 2005, p 231

Teaching can be done by presentations, develop content in a dialog or learning by self-development of the content. These activities are dedicated to face to face teaching. Basically the teacher's quality is important linked with the quality of the materials.

- **Distance Learning (e-Learning)**

  Communication and the established comunication stucture must be considered as an important quality criteria (connected as well with the Social Form and Contact)

- **Media**

  The use of different media, fitting to the taught subject , is crucial for modern Blended learning courses. The integration of typical Web 2.0 such as YouTube should be considerd as a quality issue.[6]

- **Social Form and Contact**

  In this part the interactions between Students ⇔ Students are important as well the interaction between students ⇔ and teachers (that does not include the tutorial support). Since face to face instruction is usually eliminated in online classes, instructors may lack sufficient information on how well learners actually perform in the distance learning phase. Thus, ensuring academic honesty and integrity in online courses is another challenge for instructors[7].

  There are two important situations of interactions:
  - Interaction Students/Students
  - Interaction Students/Teachers

3.4.6. Additional issues

Besides the technical Learning Environment some other issues connected with the learner are to be considered.

- **Motivation**

  Motivation must be split nto two different parts:
  - Motivation from the organisation (external controlled motivation)
    That covers appreciation of the learning activity by the learners institution (head as well as collegues), incentives (for participationg at the course)
  - Motivation from the learner (self determined motivation)
    goals that are important for the learner (higher qualificaton)

  During the course the trainers have to care for the learners motivation by encouragement and success moments.

- **Workload**

  An important issue during a Blended Learning course is the workload of a student. Here the learner does not want to be supprised – the estimation of the necessary work load during the entire course must be described in the enrollment documentation.

- **Communication**

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[6] McCarthy, 2010; Weisgerber, 2008

[7] Mentioned by Linda F. Cornelious, Ph.D., Department of Instructional Systems, Leadership, and Workforce Development, Mississippi State University, 2005
(Link: http://www.westga.edu/~distance/ojdla/spring81/yang81.htm, [12/03/2014])

Communication is – especially in the distance learning phase – one of the sophisticated items in the criteria list. The communication needs are connected with the different learner types[8]. It's necessary to develop typical communication structures to satisfy all the different learner types.

- **Technology**
  Consequently, how to appropriately use technology to serve an instructional purpose tends to be a challenge for the online education instructors as well as for the learners. Learners must be able to finance the technology as well as to use it. Especially for the distance phase technology problems (like the internet connection) may decrease the learner's success intensively and is considered as extremely frustrating (mentioned by Muirhead in 2000)[9].
- **Equipment** and **software**
- **Platform** for the **distance learning phase**

3.5. Assessment

3.5.1. Planning and Definition

Assessments must be planned and defined before the course; the information about the assessments should be shared with the learner before the enrollment of the course (necessary pre-information). It could be useful to define a Learning agreement where times, tools, goals and duties (of learners and the learner's employer[10] – if existing - are well explained from the beginning

3.5.2. Assessment execution

The assessment should be the closing element of a Blended Learning Course, followed by the evaluation of the course (by the learner).
The expectations of the learners are

- **Assessment** and **testing definitions**
  Must be done before the course starts
- **Learning outcomes**
  definitions of the expected learning outcomes
- **Evaluation** and Feedback
  The course evaluation by learners should be enhanced by a self-validation of the learner. That description is useful for the course provider as it may help to define better the target group of the course. The self-validation of the learner always should ask the questions "Was it worth for me? What did it bring for my further development?".
- **Assessments**
  According to the type of learning objectives, the course provider can use different methods to evaluate learning.

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[8] For the definition of the learner's styles, there are several different models available. One is the Kolb LSI (Learning style Inventory).
[9] Muirhead, W. D. (2000). Online education in school [Electronic version]. *The International Journal of Educational Management, 14* (7), 315-324.
[10] Not all learners are employed – there are freelancers or other people running their own business that are attending Blended learning courses.

Here a definition is necessary, how these assessments[11] can be useful for the learner and how they can be quality criteria for the learner.

4. Success Factors

4.1. The quality of learning depends on the depth of student engagement in the learning process[12]

Students' learning depends on the level and quality of their interaction with learning experiences. Students who reported being deeply engaged in structured learning activities, using a wide range of learning resources and approaches, including non-structured learning resources, talking to teachers, collaborating with other students, and online forums, achieved the highest learning outcomes.

These students were also highly organized in their study and persistent with difficult problems. What students DO matter.

4.2. The skill and effort that teachers use to create learning experiences is the single most important determinant of the quality of the learning environment[13]

This skill was most evident in how well teachers used the 10 engagement strategies. The quality of the learning experience is rooted in the application of the 10 engagement strategies. Teachers who use these strategies when integrating an online component with classroom teaching are able to create a greater variety of learning experiences for their students. These experiences offer students greater flexibility in structuring their own learning and multiple perspectives of the learning content. The most successful students used a blend of online and classroom elements. Unless teachers consciously entice, stimulate, curate, structure, communicate and attend to student needs, then all that remains is a volume of undifferentiated resources that students must interrogate alone. Students are not trained, nor do they have the time to do this. It would be more honest to give them a library card and tell them to go and find out what they need.

Teachers who developed high-quality engagement strategies made measurable differences to the level of engagement by their students. This was most evident when teachers applied the engagement strategies online as well as in the classroom. Students in these classes worked harder and longer. Even good students will struggle in poorly developed learning environments. Teachers who lacked these skills or effort created much less satisfactory learning experiences and increased the incidence of withdrawal. Withdrawals represent lost income and wasted

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[11] Possible assessments could be: Prerequisite tests, Pre-assessment tests (or entry tests), diagnostic tests, post-assessment test and certification tests.

[12] Lynn M Jeffrey, John Milne, Gordon Suddaby and Andrew Higgins, Help or Hindrance: blended approaches and student engagement, p87

[13] Lynn M Jeffrey, John Milne, Gordon Suddaby and Andrew Higgins, Help or Hindrance: blended approaches and student engagement, p87

resources. The key to improving retention is to improve the quality of the learning experience, and enthusiastic, competent teachers are one of the main means of achieving this aim.

4.3. Teachers are time-poor and lack adequate technical support and training in pedagogical principles[14]

Teachers were unclear about the pedagogical benefits of a blended environment. Most saw it as a repository for resources and an opportunity to ease the burden of student questions. Teachers were harried to have their online sites ready for the semester and had little time for exploration or reflection on the opportunities presented by the digital environment. They had had minimal training and very little technical support. Not surprisingly, these teachers were much less enthusiastic about merging traditional and digital modes of teaching than students.

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[14] Lynn M Jeffrey, John Milne, Gordon Suddaby and Andrew Higgins, Help or Hindrance: blended approaches and student engagement, p88

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Apendix

Abbreviations

F2F   Face-to-Face

ICT   Information and Communication Technologies

IST   In-Service Training