Quality in Blended Learning

Work package 01 of the project
Blended Learning Quality-Concepts Optimized for Adult Education

Multilateral Grundtvig Project

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Abstract

There exist a lot of descriptions of best practice examples of Blended Learning, but almost all published books or articles lack the description of any quality issues.

Miscellaneous projects are described – most of them are barley evaluated.

The companies and their intention to decrease costs for the staff training is often mentioned. The needs of learners, the benefit for the learner and the necessary validation of the learning success cannot be found.

An interesting fact is that most of the books are older than 5 years. It seems that in the first decade after 2000 a high pedagogical effort was undertaken to deal with Blended Learning.

The best summary of quality management can be found in the research work of Werner Moritz. He focuses on the process and the teaching results without any context to the learner.

The research work covered approximately the study of 100 documents. The most important documents (and abstracts of several books) were collected and are available for the consortium members.

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Quality in Blended Learning

In this report (the result of the work package 01 of the project), we provide an overview of the status of known and described quality issues for Blended Learning.

1. Introduction

The idea – and practice – of providing instruction through a screen rather than through face-to-face interactions with a teacher is not unknown. During World War II, films were used to train the American military, and in the 1950s and the 1960s, this medium was used in public schools as part of the curriculum, especially in the social and physical sciences. The low levels of provided interactivity typical for this mode of instruction, however, preclude its rise as a possible replacement for teachers as well as books1.

There exist a lot of definitions of Blended Learning.

Jeffrey K. Smith2 defines Blended learning as “A method of educating at a distance that uses technology (high-tech, such as television and the Internet or low-tech, such as voice mail or conference calls) combined with traditional (or, stand-up) education or training.”

J. Pankin, J. Roberts and M. Savio define “blended learning as structured opportunities to learn, which use more than one learning or training method, inside or outside the classroom.”3

2. Research frame

Researches on blended and e-learning cover a very wide range of fields, from psychology to technology. As such, it is highly complex to summarize. On the other hand, there are also large gaps in the field of research. For instance, much of the literature relates to the technological rather than the learning aspects.

The issue of quality in teaching and learning environment is a subjective and multifarious concept, dependent on a range of factors: the students, the curriculum, the faculty, technology in general and the learning design4.

There is a big gap in the field of quality and quality management.

3. Quality issues mentioned in literature

J. Pankin, J. Roberts and M. Savio give a list of issues such as “different learning or instructional methods (lecture, discussion, guided practice, reading, games, case study, simulation),

2 Smith, J., 2004, Blended Learning: An old friend gets a new name. Cited by Brian Kerr (Chair, Undergraduate Degree Programmes at Marine Institute, Memorial University of Newfoundland), in http://www.uwex.edu/disted/conference/Resource_library/proceedings/07_5220.pdf (2014/01/07)
different delivery methods (live classroom or computer mediated), different scheduling (synchronous or asynchronous) and different levels of guidance (individual, instructor or expert led, or group/social learning)”\(^5\). This list can be used basically to develop a quality system with evaluation means – but these issues don’t cover all quality levels.

Kaye Shelton Ph.D. (Dallas Baptist University) runs a review of paradigms for evaluating the quality of online education programs. She compares different quality models and gives an overview of the current research work within her current paper.\(^6\)

In the conclusion there is a highly interesting statement:

“\textit{This review of the existing paradigms suggests a strong need for a common method for assessing the quality of online education programs. Specific indicators for quality online programs vary from institution to institution; however, this review sought to find the most common themes and domains identified today by program administrators that will assist them with evaluating and improving the overall quality of their online education programs. While some of the themes were strongly considered to be significant quality indicators, others, such as faculty support, were not. A more consistent approach is needed.}”\(^7\)

Kelvin Thompson\(^8\) describes in his blended learning toolkit (chapter 5) “Blended Course Quality” that on one hand “A definitive statement of what constitutes the best combination of online and face-to-face learning experiences is impossible”\(^9\) on the other hand that there exist a huge list of best practice examples without any evaluation of quality issues.

### 4. Basics of Quality in Blended Learning

In several articles, published on the web platform of the GPI - Gesellschaft für Pädagogik und Information, Thomas Bauer (University Vienna) mentions “Four main phases”\(^10\)

- Competence requests
- Quality of classroom teaching
- Quality of eLearning / distance learning
- Organization and communication

Bernd Mikuszeit (Berlin) proposes four different evaluation sectors with a closer definition of the details in his article about „Qualitätskriterien für Blended-Learning-Programme (BLEP) für sozial-kulturelle Bildung in der beruflichen Aus- und Weiterbildung“\(^11\):

\(^7\) Ibidem
\(^8\) Thompson K.: BlendKit Course: BlendKit Reader: Chapter 5, University of Central Florida (UCF) http://blended.online.ucf.edu/blendkit-course-blendkit-reader-chapter-5 (2014/01/07)
\(^9\) Ibidem
\(^10\) see: o. Univ.-Prof. Dr. Thomas A. Bauer, Universität Wien, Institut für Publizistik und Kommunikationswissenschaft (Webseite Gesellschaft für Pädagogik und Information http://www.gpi-online.de 26.1.2014)

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1. Kompetenzanforderungen (competence requests)
   Learning target, learning content, valuation, target group

2. Anforderungen an Präsenzphasen (requirements for the presence phase/classroom teaching)
   Didactic Blended Learning phases (and issues), knowledge transfer and teaching methods, didactic rules and logical teaching methods, didactic emphases during the classroom teaching

3. Anforderungen an E-Learning-Phasen (requirements for the eLearning phase)
   Didactic Blended Learning phases (and issues), didactic content aspects of the eLearning phase, didactic rules and logical teaching methods, didactic emphases during the distance learning

4. Organisatorische und mediale Anforderungen (requirement concerning organizational issues and media)
   Learning/Teaching conditions, fitting the content and the target group, including the use of media products, multimedia elements, interactivity, adaptivity and finally a well prepared information of the Blended Learning Course.

This article also contains a questionnaire to evaluate existing blended learning courses using the quality criteria mentioned above. Each item is commented with explications using a five-point scale to provide a numeric evaluation.

5. Course Structure
B.G. Davis describes quality issues dealing with the course structure in “Tools for Teaching”\textsuperscript{12}. According to the article about course design (Carnegie Mellon University\textsuperscript{13}), he lists the crucial items concerning evaluation of Blended Learning courses:

- **Course aim**
  A brief introduction of the course: scope, purpose and relevance of the material.

- **Course content**
  Required (and/or optional) books (with authors and editions), reserve readings, course readers, software, and supplies with information about where they can be obtained.

- **Target Group**
  Consider who our students are, taking into account their prior knowledge, intellectual development, cultural background, generational experiences and expectations.

- **Learning target**
  Are defined by objectives, assessments and instructional strategies.

- **Learning Outcomes**
  Learning outcomes are measurable statements that articulate what students should know, be able to do, or value because of taking a course or completing a program.


\textsuperscript{13} See: https://www.cmu.edu/teaching/index.html (20.01.2014)
6. Trainers
Michael Strong (Columbia University) gives an overview of the necessary quality issues for teachers\(^\text{15}\) (or trainers) without focusing on special teaching environments. Quality descriptions for teachers are completely missing for Blended Learning.

7. Curriculum
This part is connected with the course structure. Sir John Daniel discussed at the 4\(^{th}\) Annual Australian Higher Education Congress (March 2011, Sidney, Australia) the need to split higher education\(^\text{16}\), but found the reason in the demand of the different ministries of education but not based on pedagogical decisions.

7.1. How to split the course
Jeff Pankin, John Roberts and Mike Savio recommend moving basic skill development to eLearning and using the classroom for more advanced topics\(^\text{17}\). Concrete methods or criteria to split the content in classroom teaching and distance learning are not discussed in the checked research papers.

7.2. The seven “R”s
Ron Ritchhart defines seven terms (all starting with a “r”) for the curriculum development: Rigorous, real, rich in thinking, revealing, rewarding and reflective.

14 Walvoord, B. E, Assessment clear and simple: A practical guide for institutions, departments and general education. San Francisco: Jossey-Bass; 2010
15 Strong, M, “The Highly Qualified Teacher: What Is Teacher Quality and How Do We Measure It?”, Teachers College, Columbia University; 2011
8. Quality Indicators
Beth Chaney (and others) published a paper dealing with quality indicators of distance education in 200718.

- Theme
- Teaching and Learning Effectiveness
  - Student <-> Teacher interaction
  - prompt feedback
  - respective diverse ways of learning
- Student Support
  - Student support service
  - Clear analysis of audience
- Technology
  - technology plan to ensure quality is documented
  - appropriate tools and media
  - reliability of technology
- Course Development / Instructional Design
  - Course structure guidelines
  - active learning techniques
  - implementation of guidelines for courses
  - development/review of instructional materials
- Faculty support (services)
- Evaluation & Assessment
  - Program evaluation and assessment
- Organizational/Institutional Impact
  - institutional support and institutional resources
  - strong rationale for distance education/correlates to institutional mission

9. Institution
Blended Learning Courses are strongly connected with the providing institution19.

9.1. Institution level
The institutional level includes projects such as policy design, and the support of organizations and internal quality assurance systems.

9.2. Program level
Comprising actions to measure and enhance the design, content and delivery of the programs within a department or a school.

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19 See: Hénard, Fabrice; Roseveare, Deborah: IMHE Guide for Higher Education Institutions, OECD; 2012

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9.3. Individual level

This includes initiatives that help teachers achieve their mission, encouraging them to innovate and to support improvements in student learning and adopt a learner-oriented focus.

10. Students

A special focus was set on the learners and the description of the role of learners in quality issues during Blended Learning courses. Here the quality issues concerning with the learners’ needs and satisfaction were checked in miscellaneous documents, articles and books.

Robert A. Ellis and Rafael A. Calvo mention in their article about indicators for quality in distance learning courses: “The implications of this for ensuring the quality of the student learning experience are serious and complex.”20 They define necessary, but insufficient indicators like Leadership and ongoing funding, Policy, Evaluation services, Support for teaching and learning with ICTs, support for planning, design, and development with ICTs and other issues.

11. Support of Learners

Jeff Pankin, John Roberts, Mike Savio21, describe three main factors that are crucial in learners’ support: time, technology and guidance.

12. Barriers of Blended learning

Harriman (2004) cites the following challenges to those who want to develop blended learning22:

- How to manage instructional complexity
- How to design it
- How to manage roles and responsibilities
- How to create a seamless learning experience
- How to meet expectations
- How to control costs

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21 See: Pankin, J, Roberts J, Savio, M:Blended Learning at MIT, July 2012
22 http://www.grayharriman.com/blended_learning.htm#5
13. Summary

The research work gives an overview about the current status of quality management in Blended Learning. The literature available gives a lot of studies focusing on implementation of Blended Learning. Others care about evaluation tools and methods. In most cases, quality issues are not mentioned. Besides, it is often not entirely clear, why the examples are mentioned as successful as presented because of missing quality criteria.

Typical are a lot of case studies of Blended Learning courses run in business companies. These reports are often not based on scientific research and test methods.

The most fitting book to the project’s topic is the Blended-Learning Book (Werner Moritz). It describes a research project in Graz, where the classroom teaching of the Pedagogical University was changed to a Blended Learning system.
14. Available documents at the document repository

Hint: Authors are cited with full name to provide easy search in the document.

14.1. Selection
The consortium selected documents with either direct context to research work or common documents (often listed in the reference or as a citing source in books).

The documents are used by the consortium members as a source and knowledge base.

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15.2. Literature and Books


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Appendix

Keywords and search strategies
The Google web search was the basic search engine used for this research. Here is the list of used keywords:

- Blended Learning
- Blended Learning Quality
- Students’ needs
- Distance Learning
- eLearning
- Quality issues in teaching
- Quality criteria in teaching
- Quality strategies
- Assessments

Book search
The research used also the digitized library available in Google Books in Google Books. Furthermore, the German and English offers of fitting books were checked (for example amazon.com, Buch.de and Libro Co).

Other search strategies
The references of available books were checked for authors and other fitting literature.