A Good Mix in Blended Learning For Small and Medium-sized Enterprises In Particular from the IT and Tourism Industry

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Declaration

I Sabine Moebs declare that this thesis is submitted by me in partial fulfillment of the requirement for the degree MSc by Research, is entirely my own work except where otherwise accredited. It has not at any time either whole or in part, been submitted for any other educational award.

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Executive Summary

Twenty-three million small and medium sized enterprises (SMEs) provide around 75 million jobs, that is two thirds of all jobs and 99% of all enterprises in Europe, states the Observatory of European SMEs. SMEs tend to maintain their staff even during economically difficult times, which makes them an important, stabilizing pillar of the national economies. The increasing globalization and the consequent competitiveness together with changing legal requirements force SMEs to permanently build up knowledge beyond their core area of expertise (EU 2003).

Blended learning, a mix of online and face-to-face learning, can combine the positive aspects of both, classroom-based learning and e-learning environments (Bonk and Graham 2006). Yet, although blended learning seems to be quite suitable for SMEs, current uptake of this learning method is low.

A lot of research has been done on a number of very specific aspects of blended learning, often with a higher education student population. An open research approach seemed adequate, to leave enough room for emerging topics, to give enough room for all the stakeholders to get involved, and to find out which of the previous research in relation to blended learning and e-learning are actually relevant in the context of SME learners.

The research question emerging is: "What are relevant characteristics for successful blended learning for learners in SMEs?"

More specifically this thesis aims to answer the following questions:

- What is a successful mix for learners in SMEs from the IT sector in blended learning?

- Does this mix vary depending on the industry and the size of the company?

- Which recommendations can be given in regard to the adaptation of blended learning and SME learners needs?

In this thesis an explorative study and a case study on blended learning in SMEs explore these questions.

The literature review in chapter 2 explores the background of the initial research question. Section 2.1 describes promoters, benefits and barriers to e-learning. The main promoters and benefits are the possibility to provide dependable content and guarantee the same content for every participant. Another key benefit is the significantly reduced delivery time to the learner Garavan and O'Donnell 2003). Over commitment to multiple roles and responsibilities, the interruptions at home, work or wherever one studies, the lack of time to study and technology barriers (Mungania 2003; Page 2006) could be identified as main barriers. Section 2 looks in detail at definitions, dimensions, frameworks and success factors for blended learning. In summary the term blended learning is used for a combination of e-learning and face-to-face learning, varying in the use of ICT and the materials used, and striving to develop continuously towards a better quality learning experience. As success factors for blended learning the design of the blend, time flexibility, the matching of media and learning styles, student support, executive support, content and the consideration of different learning styles could be identified from the literature.

Learning in SMEs and e-learning in Irish companies are the focus for section three and four respectively. Learning in SMEs can be characterized by a list of obstacles, including lack of time, cost issues and the limited ability of company owners to contact suitable sources for e-learning. E-learning in Irish companies is coined by the previous characteristics in addition to a lack of a learning culture.

Chapter 3 outlines the methodology and the research design, which examines the requirements for successful blended learning in SMEs. Participants for the online-Delphi study and the semi-structured interviews were selected following a list of panel criteria and were grouped into sub-panels of SME learners, trainers and providers of e-learning as well as learners from large companies as a control group for the SME learners. The research design is based on an on-line three-round ranking-type Delphi study with initially fifty panellists and a case study, including interviews with 4 interviewees, representing the sub-panels of the Delphi study. Our method takes into account that the area and the term "blended learning" are discussed in very different, partially contradicting connotations.

The findings of the Delphi study and the case study are presented in chapter four, followed by chapter five which presents the analysis of the findings of the Delphi study. Chapter provides an outline for a guidebook for tutors, which was applied in the interviews for the case study, presented in chapter seven. The data analysis methods include Kendall's coefficient of concordance, concept maps and radar chart analysis. The results of chapter four to seven can be summarized by answering the initial research questions.

What is a successful mix for learners in SMEs from the IT sector in blended learning?

In order of relevance the final "Top 10" characteristics for successful blended learning in SMEs from the IT sector are: time flexibility, cost efficiency, support mechanisms, accessibility, efficiency, quality, self-paced learning, results measurement, content design and learner-centeredness. These characteristics put a balanced emphasis on the areas design, skill-driven learning, and the access to knowledge, quality assurance and cost effectiveness. Surprisingly social interaction was not selected.

Does this mix vary depending on the industry and the size of the company?

In comparison the sub-panel tourism SMEs selected social interaction as an important area, whereas design was not selected.

The large companies sub-panel choose clearly different areas, compared to the IT SME sub-panel. There was a strong emphasis on design and social interaction, whereas cost effectiveness was not considered important. Skill-driven learning and quality assurance only show a weak consideration.

Which recommendations can be given in regard to the adaptation of blended learning and SME learners needs?

A sound approach for blended learning in SMEs should consider the "Top 10" aspects selected and the characteristics outlined above in combination with the results of the case study, which showed the importance of the role of the tutor or trainer. All interviewees pointed out the importance of a personal touch for a successful blended learning scenario.

The final chapter provides an outlook for future research. Future research might involve a validation of the results in a quantitative study with a larger sample. Further areas that could be explored are the impact of initial training to improve the digital literacy within the SME learner group. The learning theories which can support the SME learners' preferences best and what kind of learning system could support these requirements are two other directions for future research.

Related Publications

Moebs, S., Piombo, C., Batatia, H. and Weibelzahl S. 2007, 'A Tool Set Combining Learning Styles Prediction, a Blended Learning Methodology and Facilitator Guidebooks – Towards a Best Mix in Blended Learning', in *Proceedings Interactive Computer Aided Learning*, Villach, Austria

Moebs, S., Weibelzahl, S. and Dowling, N. 2007, 'Supporting Facilitators of Blended Learning with Guidebooks', in *Proceedings Eighth Annual Irish Educational Technology Users' Conference*, Dublin, Ireland

Moebs, S. and Weibelzahl, S. 2007, 'A Ranking-Type Delphi to explore Blended Learning in SMEs', in *Proceedings Interactive Computer Aided Blended Learning*, Florianopolis, Brazil

Moebs, S. and Weibelzahl, S. 2007, 'Blended Learning: Towards a Mix for SMEs - Stakeholders and their Prioritie*s*' in Fong, J. and Wang F.L. (eds.), *Blended Learning,* Prentice Hall, Singapore, p. 162-173

Moebs, S., & Weibelzahl, S. 2006, 'Towards a good mix in Blended Learning for Small and Medium-sized Enterprises – Outline of a Delphi Study' in E. Tomadaki and P. Scott (eds.), *Innovative Approaches for Learning and Knowledge Sharing*, EC-TEL 2006 Workshops Proceedings, 1-4 October 2006, Crete, Greece, Milton Keynes, Open University, p. 10-17

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