E-learning as augmentation rather than disruption

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An ancient Chinese parable tells us about the foolish man of Sung who (unsuccessfully) tried to help the corn grow by pulling at it. It is our contention that to some extent the present increasing disillusionment with e-learning may be the result of too much impatient "pulling the corn". Adoption of e-learning certainly has been slower than many had anticipated, and there is a relative scarcity of documented successes, particularly in contexts where e-learning is supposed to be superior to conventional forms of instruction. Yet, in other areas of the far-reaching domain of e-learning there is growth; a modest but clear case in point being simulations in the natural sciences. (Josephsen & Kristensen, 2006). Reappraisal rather than rejection is called for, and strategies need to be devised to stimulate and direct e-learning on the basis of actual growth.

Pedagogy, curriculum planning, technology and economy are some of the important factors determining the adoption of e-learning. But they need to be considered in a wider context, if we are to make progress. In a recent publication, working on both a macro and a micro analytical level, we have tried to identify a number of dynamically interrelated *systemic* (social, cultural, economic, historical, physical, technological), *world view* (discourse, frame of analysis) and *sense-making* (emotional, inner life) factors that supplement and indeed may be just as important to the adoption of e-learning as the frequently discussed factors mentioned above (Heilesen & Jensen, 2006).

In the present paper we intend to use this complex set of interrelated factors as a framework firstly for analyzing the e-learning situation, with particular focus on blended learning, at a small Danish university (Roskilde University) characterized by a combination of classroom teaching and problem-oriented project work carried out by students working in groups. Secondly, we will use our framework for outlining strategies by which to further the adoption of e-learning at the institution. Given that cultural differences make it difficult to compare pedagogical practices across national borders, and even between institutions, we do not claim that the results of our analysis can be generalized. But the methodological approach as such may prove useful to others.

In the paper we will examine the organization, learning environment and external dependencies of the university, and we will draw on some examples of blended e-

learning usage both within the natural sciences and the humanities/social sciences - covering courses and well as project work both in the regular university and Open University programmes. On that basis we expect to conclude that even if disruptions, large or small, are not much in evidence there certainly have been constructive shifts in practices and perspectives.

References

Heilesen, S. B., & Jensen, S. S. (2006). Making Sense of Technologically Enhanced Learning in Context: A Research Agenda. In E. Korsgaard Sorensen & D. Ó Murchú (Eds.), *Enhancing Learning Through Technology* (pp. 269-291). Hershey; London; Melbourne; Singapore: Information Science Publishing.

Josephsen, J., & Kristensen, A. K. (2006). Simulation of laboratory assignments to support students' learning of introductory inorganic chemistry. *Chem. Educ. Res. Pract., 7*(4), (accepted for publication, July, 20th, 2006).