Editorial for EJEL Volume 15 Issue 1

Welcome to volume 2 of the special issue of EJEL, focusing research methodologies in e-learning.

As expressed in the call, e-learning research is largely heterogeneous in that there is large variation in the use of research methods and approaches. There is research focusing on evaluation and effectiveness, being based on single case studies or covering several cases. Added to this is the broad variety of pedagogical approaches, domains and contexts that are being approached. The contributions in volume 1 of this special issue largely reflected this and presented reflections on the use of research methodology and results, as well as the anchoring and proposing of new approaches to e-learning research. Volume 2 is no exception to this and presents a blend of qualitatively and quantitatively oriented e-learning research; research focusing on the evaluation and results as well as the processes of e-learning research; analyses of e-learning and anchored suggestions for change of policy and power structures; contributions to the continued development of theory and methodology within e-learning research; as well as the assessment of e-learning quality. All in all, contributions aiming for continued discussion and reflection.

Paula Charbonneau-Gowdy makes a strong argument for a critical and reflective approach to researching technology use to unravel research approaches that can aid in closing the gap between research and practice. The argument is made that while technology is increasingly becoming a social networking facilitator, qualitative research has the power to uncover the stories that matter in socially embodied learning contexts. Hence, the author makes an argument for the importance of qualitatively oriented e-learning research. In the article "An e-learning team´s life on and offline: a collaborative self-ethnography in postgraduate education development". Alison Clapp presents an ethnography involving a community developing e-learning courses. In any collaboration, such as in designing and delivering e-learning courses there will be stakeholders with different backgrounds and experiences. Being a subject matter expert is one thing, designing and delivering e-learning courses is another. Based on ethnography as an interpretative approach, the author presents "guidelines" to staff development to facilitate future engagement in and development of online distance learning. In the same vein, Laura Delgaty points at changes and transformations of relations and power structures that have emerged in the uptake of distance learning, and the need for clear guidance within academia as regards the development and delivery of distance learning. The study reported in the article, building on practitioner inquiry methodology and use of mixed-methods, is a direct response to these concerns and makes a call for new models of organizational roles and responsibilities. New competencies are demanded and traditional roles and cultures need to be redefined. The article makes a case for practitioner inquiry being a legitimate research approach in that it is accessible and valuable to teachers, and the article further adds to applied and useful knowledge concerning distance learning practice.

Katja Derr approaches the problem of course evaluation given that there is large variance in participants' knowledge levels, learner behaviour and commitment. A study is presented in which the effectiveness of a mathematics pre-course was evaluated to investigate whether the pre-course enabled "at risk" students to improve their starting position in STEM-related subjects. A pre-post test design revealed the importance of basic mathematical knowledge for academic achievement in engineering, and that students having participated in additional face-to-face courses showed less learning gain as compared to students having participated in an e-tutoring version. Online test attempts by students in the pre-course further proved to be a reliable indicator of student engagement. Identifying good indicators of student learning processes and engagement, as well as that of efficiency and quality of e-learning courses, is admittedly difficult. In the article "Motivational gaps and perceptual bias of initial motivation: additional indicators of quality for e-learning courses", the problem of finding good indicators of course quality is approached. Rosário Cacao presents a study on the motivation of trainees in e-learning-based professional training and more specifically, the effect of their motivation on perceptions of course quality. The concepts of perceived motivational gap and real motivational gap are defined and suggested as indicators of e-learning quality. The results from the study show that the conceptual gaps help explain how trainees' perception of quality is affected; the gaps were minimized when perceptions of quality were higher, and when they were positive perceptions of quality was higher than average.

The authors Levinsen and Ørngreen in their article present and discuss workshops as a research methodology, and more specifically how workshops as a research methodology pertains to e-learning. An analysis and discussion of five studies on upper secondary and higher education teachers' professional development and on teaching and learning through video conferencing, paves the way in their argumentation - more precisely, the argument that workshops can provide the means for understanding complex work and knowledge processes supported by technology, and among these e-learning. The format aids in identifying factors that are not obvious to participants or researchers, and thus helps in identifying blind spots. The pivotal role of the researcher as a facilitator of such workshops and the analysis of these, is further discussed from a research ethical point of view. While the authors Levinsen and Ørngreen contribute to a discussion on research methodology within e-learning by introducing the format of workshops, Magnussen et. al., presents a methodological discussion of the potential and challenges of involving mobile eye tracking technology in studies of knowledge generation and learning; and more specifically, within a science centre context. A study is presented where eye tracking technology has been used by families and children, as well as of school classes visiting a science centre. The authors present how the use of eye tracking technology and methods influence research on an interventional level, on a data level, and on analytical level and how eye tracking can supplement other analytical approaches.

In the article "The e-learning setting circle: First steps towards theory development in e-learning research", the authors Marco Rüth and Kai Kaspar presents a model that enables comparability and generalizability of e-learning project results by structuring, standardizing and guiding e-learning approaches at the level of a general research methodology. The authors in their argumentation point at the heterogeneity of e-learning approaches with fairly unique combinations of situational factors guiding the design of e-learning. And more specifically, that this is conducted in a bottom-up fashion – and hence comparability and generalisability becomes difficult if not impossible. There is thus a lack of comprehensive theories that allow assuming top-down approaches to e-learning research. The e-learning setting circle that is presented is a first step in such adirection. The model builds on two elements; a guiding element making clear the setting and assessment of goal attainment, and a universal element building on multi-criteria decision making. The model further consists of the following three clusters; context setting, structure setting, and content setting. The model is presented as a strategic conceptual framework that can be used to foster theory development in e-learning projects and research.

Hence, the articles in volume 2 make further contributions to an ongoing critical discussion and challenging of established approaches and paradigms within e-learning research and practice.

Robert Ramberg
Guest Editor