

MOBILE PHONES TO FACILITATE CONNECTED SOCIAL LEARNING AND WORK-BASED PRACTICES IN MARGINALIZED SETTINGS.

INSIGHTS FROM A RESEARCH PROJECT IN RURAL SOUTH AFRICA

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Extended Abstract

Background and Rationale

This paper outlines the findings of a research project intended to facilitate the learning of health professionals across work-based and formal learning contexts by means of mobile technology. The focus of the educational approach was on the use of digital mobile media, and particularly mobile networking technologies to support social learning practices of professionals, i.e., nurses, in marginalized settings in rural South Africa.

The overall project was informed by previous studies from marginalized contexts that pointed to the potential of mobile phones and mobile social networking technologies as a means to facilitate the learners' engagement with explicit forms of educational content as well as to allow for their extended participation in professional, work-based communities (Kolko, Rose, & Johnson, 2007; Pimmer, Linxen, & Gröhbiel, 2012; Pimmer, Linxen, Gröhbiel, Jha, & Burg, 2013).

Approach and Methods

The research design was set up as a two-step process: Firstly, a qualitative field study was conducted to gain an in-depth understanding of (potential) grass-root mobile learning practices in education and work-based settings. For this purpose, 16 nurse students, facilitators and clinical managers from a province in rural South Africa were interviewed and techniques of qualitative content analysis were used to examine the transcripts.

Secondly, building on these findings, an educational intervention was designed to explore to what extent mobile social media can be used and integrated into formal education more systematically. The research was carried out in the setting of a module focused on the development of analytical and research skills of nurses enrolled in a part-time Advanced Midwifery education programme. In this module, groups of learners were required to jointly develop a research proposal. In so doing, they were guided and supported by a lecturer in the form of group supervision and mentoring by means of a closed group on a social network site, which they accessed primarily through their mobile phones. A single case study involving systematic content analysis, and quantitative pre- and post-tests was performed to determine the effectiveness of this educational approach.

Results and Discussion*

Through the field study several grass-root mobile learning practices were identified: mobile phones were used to facilitate (1) authentic problem solving in work-based settings; (2) reflective practice

regarding work experiences; (3) emotional support and belongingness within professional communities across university and work settings; (4) the realization of unpredictable teaching situations; and (5) life-long learning. For example, nurses reported that they were using Social Network Sites (which they accessed through their mobile phones) to discuss more complex patient cases, to reflect on these cases, and to provide emotional support in more difficult situations. It was found that informal, grass-root mobile phone usage, and the convergence of mobile and social media in particular, changed learning environments and connected learners distributed across marginalized areas (Pimmer et al., 2014, in print).

By enriching groups of nurses (communities of inquiry and practice) with an element of systematic on-demand teaching, and by supporting them in the design of a research proposal which addressed questions and problems in their own work environments, the intervention focused and expanded on the themes 2, 3 and 4.

The findings regarding the intervention supported the view that this approach was effective in enabling rich group research supervision and mentoring processes, for example when compared to the UK National Framework for Mentoring and Coaching (DCSF, 2005): The processes discerned included the identification of learning goals, active listening, modelling and articulation of practice to raise awareness, the provision of guidance, feedback and direction as well as review and action planning. Regarding the research supervision framework for medical professionals established by Lee (2008), the processes identified were primarily centred on critical thinking and functional purposes, and, to a lesser extent, on enculturation and relationship development.

Due to the fact that the mentoring was done using an expert consulting model, most of the communication in the intervention was based on the interactions between the lecturer and representatives of the groups, and to a lesser extent on horizontal and peer-communication patterns.

Conclusion and contribution to the three conference themes

In view of the “boundaries of learning” theme, the findings from the informal settings point to the affordances of mobile networking technologies as boundary crossing tools: tools which, as we have recently argued (Pimmer, in review), enable learners to generate multimodal representations (text, audio, images) that reflect their experiences and identities, and to share them across more heterogeneous and peripheral spaces of their social networks in ways not previously possible. This is specifically valuable in marginalized settings, in which professional networks tend to be less rich because many (health) professionals work in professional isolation (Raisler & Cohn, 2005).

With regard to the theme “new patterns of connected social learning and work-based practices”, the most interesting results in terms of creativity and richness were found in informal and work-based settings. This is particularly true concerning the building of social and cultural capital (Cook, Pachler, & Bachmair, 2013), and professional participation. Accordingly, the “design of (valuable) mobile learning’ at scale” in more formal settings can be considered still to be a challenge. What was specifically valuable in this regard was the ex-ante field study, which helped to identify existing practices and habits on which the intervention was built. Similarly, it still remains an open question how mobile media and networking dynamics on a peer-level can be best integrated into more formal education settings; a highly relevant question that we will address in future design-based research projects.

Notes

*This represents only a cursory and exemplary overview of preliminary findings.

References

- Cook, J., Pachler, N., & Bachmair, B. (2013). Using social network sites and mobile technology to scaffold equity of access to cultural resources. In G. Trentin & M. Repetto (Eds.), *Using network and mobile technology to bridge formal and informal learning* (pp. 31-56). Cambridge: Woodhead Publishing.
- DCSF. (2005). National Framework for Mentoring and Coaching. . 2013, from <http://webarchive.nationalarchives.gov.uk/20110809101133/nsonline.org.uk/node/132345>
- Kolko, B. E., Rose, E. J., & Johnson, E. J. (2007). *Communication as information-seeking: the case for mobile social software for developing regions*. Paper presented at the 16th international conference on World Wide Web, New York.
- Lee, A. (2008). How are doctoral students supervised? Concepts of doctoral research supervision. *Studies in Higher Education, 33*(3), 267-281.
- Pimmer, C. (in review). Mobile learning as boundary crossing. An alternative route to technology-enhanced learning? *Interactive Learning Environments*.
- Pimmer, C., Brysiewicz, P., Linxen, S., Walters, F., Chipps, J., & Gröhbiel, U. (2014, in print). Informal mobile learning in nurse education and practice in remote areas. A case study from rural South Africa. *Nurse Education Today (Elsevier)*. doi: 10.1016/j.nedt.2014.03.013
- Pimmer, C., Linxen, S., & Gröhbiel, U. (2012). Facebook as a learning tool? A case study on the appropriation of social network sites along with mobile phones in developing countries. *British Journal of Educational Technology, 43*(5), 726-738.
- Pimmer, C., Linxen, S., Gröhbiel, U., Jha, A., & Burg, G. (2013). Mobile learning in resource-constrained environments. A case study of medical education. *Medical Teacher, 35*(5), e1157-e1165.
- Raisler, J., & Cohn, J. (2005). Mothers, Midwives, and HIV/AIDS in Sub-Saharan Africa. *Journal of Midwifery & Women's Health, 50*(4), 275-282.