WIL CONNECT: Connected Learning for Nursing and Allied Health Professionals via a Mobile App

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Mobile technology has been described as 'a way to transform learning. It is a catalyst for creating impactful change in the current system and crucial to student development in the areas of critical-thinking and collaborative learning…..skills that are needed in a globally competitive economy' (West, 2013, p. 14). Whilst understandings of mobile learning and m-learning are still evolving, Crompton (2013) defines m-learning as 'learning across multiple contexts, through social and content interactions, using personal electronic devices' (p. 3). Not surprisingly the popularity of mobile technology and internet usage are making mobile devices an important tool for m-learning and impacting on the ways in which traditional courseware is being delivered in higher education. M-learning allows students to learn independently regardless of time and place facilitated by the arrays of mobile devices and wireless Internet (Tan, Ooi, Sim & Phusavat, 2012).

Perhaps one of the most important educational affordances offered by mobile technology is the opportunity that it provides in terms of enabling connected learning. Connected learning can be described as a pedagogical approach that 'seeks to integrate three spheres of learning that are often disconnected - personal interest, peer relationships, and academic achievement' (Mizuko et al., 2013, p. 63). This enables the learner to uniquely integrate personal connections, in-class and out-of-class experiences, collaborations, and resources of all kinds resulting in a deeper learning experience that better addresses learners' specific needs. Importantly, connected learning requires not just the acquisition of knowledge but also an understanding of how to use connections to ask questions, find answers and develop competencies (Educause, 2013).

These rapidly emerging trends offer exciting possibilities which have the potential to enrich the educational experience of nursing and allied health professional students, particularly within the clinical practice context. Unlike classroom learning, students in the clinical setting frequently have to contend with situations that are unplanned, complex, multidisciplinary in nature and needing to be dealt with quickly on the basis of incomplete information (Yorke, 2011). These and other factors complicate the realisation of integrative educational experiences and, potentially, the quality of learning outcomes achieved by students. Given the potential of mobile technologies to enable connected learning outcomes, our question is whether, and in what way/s, an m-Learning solution designed to facilitate interprofessional student collaboration during clinical practicums might complement the supervisory guidance being received and enhance the overall quality of student learning.

This presentation reports on our work in progress to develop a mobile app designed to provide a real-time means by which students from nursing and allied health disciplines can meaningfully connect with each other during the course of a clinical placement in order to share insights, pose questions, receive feedback and reflect on their learning. The app's conceptual design draws upon four principles of connected learning: accessible learning experiences which allow participation in different ways, are linked to participatory and experiential activities, centred around shared interests which create a 'need to know', and provide a means by which learners can share their work, knowledge and skills with others (Mizuko et al. 2013). It includes a social networking strategy for students to introduce themselves to other members of the peer-based community, conversation triggers to stimulate dialogue amongst the community and opportunities for the real-time sharing of thoughts, questions, ideas, suggestions, insights etc. regarding their experiences in the various clinical settings in which they were placed.

Twenty two undergraduate students from the disciplines of nursing, social work and nutrition and dietetics volunteered to participate in the pilot which was conducted in late 2016/early 2017. A short briefing session about the aims of the project and how to use the app were provided to students prior to the

commencement of the pilot. Evaluative feedback was collected using a purpose-built online survey and a face-to-face focus group discussion. Basic statistical procedures were used to analyse the quantitative data, and thematic analysis was used to identify and analyse patterns in the qualitative data yielded from the focus group discussion (Braun & Clark, 2006). Quantitative and qualitative data indicate that students valued the opportunity to connect with their multidisciplinary peers during the course of a clinical practicum in the workplace. However, content analysis of their online dialogue (Miles & Huberman, 1994), and commentary during the focus group discussion, highlight several issues which have important practical and curriculum implications for their engagement with the app and consequent realisation of learning benefits. Outcomes from the pilot are being used to refine the initial prototype app for testing on a wider scale in the latter part of 2017.

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References:

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. Qualitative Research in Psychology, 3(2), 77-101.

Connected Learning Alliance. (2017). What is connected learning? Accessed fromhttps://clalliance.org/

Crompton, H. (2013). A historical overview of m-learning: Toward learner-centered education. In Z.L. Berge & L.Y. Muilenburg (Eds.), Handbook of Mobile Learning (pp. 3-14). New York, NY: Routledge.

Educause. (2013). 7 things you should know about connected learning. Accessed fromhttps://library.educause.edu/resources/2013/5/7-things-you-should-know-about-connected-learning

Miles, M. B., & Huberman, A. M. (1994). Qualitative data analysis: An expanded sourcebook. Thousand Oaks, CA: Sage.

Mizuko, I., Gutiérrez, K., Livingstone, S., Penuel, B., Rhodes, J., Salen, K., Schor, J., Sefton-Green, J., Watkins. S. (2013). Connected Learning: An Agenda for Research and Design. Irvine, CA: Digital Media and Learning Research Hub.

Tan, G-W., Ooi, K-B., Sim, J-J. & Phusavat, K. (2012). Determinants of mobile learning adoption: An empirical analysis. Journal of Computer Information Systems, 52(3), 82-91.

West, D. M. (2013). Mobile Learning: Transforming Education, Engaging Students, and Improving Outcomes. Centre for Technology Innovation at Brookings. Accessed fromhttps://www.brookings.edu/research/mobile-learning-transforming-education-engaging-students-and-improving-outcomes/

Yorke, M. (2011). Work-engaged learning: toward a paradigm shift in assessment. Quality in Higher Education, 17(1), 117-130.

Abstract Summary:

The question being addressed by this project is whether, and in what way/s, an M-Learning solution based on connected learning principles might enhance student learning outcomes. A prototype app has

been developed and piloted. Quantitative and qualitative feedback highlight several issues for curriculum development and app refinement.

Content Outline:
Introduction

- o Emergence of mobile devices and connected learning as important trends in higher education
- o Potential to enrich nursing and allied health education, particularly within the clinical practice context

- o Question being addressed by this project

Body

- o Development of a purpose-built app

    1. Conceptual underpinning - principles of connected learning
    2. App design/structure

- o Pilot project

    1. Participants
    2. Implementation process

    3. Evaluation schema

- o Outcomes

    1. Quantitative results
    2. Qualitative analysis (focus group)
    3. Content analysis (online interaction)

Conclusion

- o Key learnings to date

- o Short term implications for app refinement
- o Longer term implications for nursing and allied health curricula

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Author Summary: Professor Robyn Nash is an Adjunct Professor in the Faculty of Health at QUT. She has been responsible for curriculum design, evaluation and review, and innovation in learning and teaching for the suite of more than 50 undergraduate and postgraduate courses offered by the Faculty. She is currently working on a range of projects for the Faculty of Health, QUT's Learning and Teaching Unit and the QUT International College.