



Summary of Hospital School Research: Technologies for Socially Inclusive Communities: Mobile technologies to support hospitalised young people

- *Phase 1: (2014-2015) Tech connection for hospitalised youth: investigating the impact of mobile technologies and digital pedagogies for hospital school teachers.*
- *Phase 2: (2015-June,2017) Tech-connection for hospitalised youth: investigating the impact of mobile technologies and digital pedagogies for hospital school youth.*

The project investigated the role that mobile technologies can play in helping alleviate some of the challenges faced by teachers and students within the unique learning environment of a hospital school. This hospital school selected to be the research site for the study, is located in a children's hospital which served approximately 5,500 students each year. Hospitalised students cannot attend their regular schools and as a result their educational progress and development can suffer. At the time of this research the hospital school employed seventy five full time or part time teachers, who were experienced educators.

Following a literature review we concluded that the use of technologies with children and youth in hospitals generally increased their potential for learning and improved connectivity with enrolled schools (Maor and Mitchem, 2015).

Pedagogical Professional Development

The first stage of our investigation focused on the professional development needs of the teachers working in hospital schools. With the advent of new technological developments, technology is often implemented without the teachers having the skills, knowledge and confidence to effectively teach with the mobile technologies. Our project, therefore, first examined the impact of an innovative professional development program to transform teaching in the hospital context via the integration of mobile technologies with sound content and pedagogical knowledge. This project highlighted the importance of pedagogy-focused training alongside coaching in a collaborative group setting (Maor, Robinson and McCarthy, 2016).

Teachers Professional Needs

To add a further dimension to our understanding of the integration of mobile technologies in a hospital school setting, we conducted a mixed methods study with 29 teachers. We investigated the specific needs of hospital school teachers during the early stages of the initiative, and found that hospital teachers' technology needs are personal, contextual and diverse. Specifically, teachers require personalized, work-embedded continuous professional development, supported with appropriate individual technology access with time to learn and share (McCarthy, Maor and McConney, 2017). Next we introduced a professional development program to effect transformational change. We found that identifying and addressing hospital school teacher needs through customized professional development, supported with individualized coaching, can increase teachers' technological pedagogical knowledge to enable the improved use of mobile technology. Additionally, teachers responded to opportunities to collaborate as a professional learning community to implement, support and enhance mobile learning for hospitalized students. The findings have significant implications for leaders in all schools and systems embarking on similar initiatives to transform pedagogical practices through professional development supporting mobile technology integration in a digital world (McCarthy, Maor, and McConney, 2019).

Students' Learning, Communication and Wellbeing

Hospitalized adolescents experience significant needs beyond medical treatment. They require emotional support for anxiety and stress, educational support for learning, and social support to reduce isolation. This qualitative study explored the use of mobile technologies to connect students to their schools, classmates, and families in an effort to reduce their isolation and disrupted schooling experiences. We conducted in-depth interviews with 18 hospitalized adolescents aged 12 to 18, 29 teachers, and four parents about the affordances of mobile technologies. We found that mobile technology use in a hospital school was critical to engage adolescents in learning and keep them up-to-date with schoolwork. Mobile technologies should be available and accessible

in hospital for adolescent patients for the purpose of meeting their learning, communication, and well-being needs. In particular, mobile technology should be used as a therapeutic tool to overcome hospitalized adolescents' social isolation and improve their well-being (Maor & Mitchem 2018).

System Thinking Approach

Previous studies have focused on a broad range of issues associated with mobile technologies in hospital schools, including the needs of teachers, professional development, and student learning and wellbeing. The last phase of the research examined the integration of mobile technologies in a hospital school from an institutional perspective at a systems level. The leadership team of the hospital school reflected on their experience of integrating mobile technologies into education programs. Using qualitative data from two focus group interviews and a self-assessment questionnaire, we captured the essence of the leadership group's approach. Results of this case-study revealed that, using a systems thinking approach had contributed to the overall success of the integration of mobile technologies and addressing all components of a systems thinking approach simultaneously can contribute to the sustainable and effective integration of technology (Maor & Mitchem, under review).

Future Research

We are currently planning a collaborative study titled: systems thinking approach with technology to promote wellbeing of hospitalised-children, with special emphasis on wellbeing of the students and teachers as emotional educators. This will be done in collaboration with hospital schools' staff and colleagues from Murdoch University.

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Publications resulted from this project

McCarthy, A., Maor, D. and McConney, A. (2019) *Transforming mobile learning and digital pedagogies: An investigation of a customized professional development program for teachers in a hospital school*. *Cite Journal*, 19 (3).

<https://researchrepository.murdoch.edu.au/id/eprint/51207/1/Transforming%20Mobile%20Learning.pdf>

Maor, D. and Mitchem, K. (2018) *Hospitalized Adolescents' Use of mobile technologies for learning, communication, and Well-being*. *Journal of Adolescent Research*, 00 . pp. 1-24. DOI: DOI:10.1177/0743558417753953

<https://journals-sagepub-com.libproxy.murdoch.edu.au/doi/10.1177/0743558417753953>

McCarthy, A., Maor, D. and McConney, A. (2017) *Mobile technology in hospital schools: What are teachers' professional learning needs?* *Journal of Technology and Teacher Education*, 25 (1). pp. 61-89.

<https://www-learntechlib-org.libproxy.murdoch.edu.au/primary/j/TATE/v/25/n/1/>

Maor, D. and Mitchem, K.J. (2015) *Can technologies make a difference for hospitalized youth: Findings from research*. *Journal of Computer Assisted Learning*, 31 (6). pp. 690-705.

<https://onlinelibrary-wiley-com.libproxy.murdoch.edu.au/doi/full/10.1111/jcal.12112>

Maor, D., Robinson, J.A. and McCarthy, A. (2016) *Mobile technologies in hospital schools: Innovative professional development to enhance the learning environment*. Young and Well Cooperative Research Centre/ Murdoch University, Melbourne, VIC. <http://www.youngandwellcrc.org.au/>

http://media.wix.com/ugd/37e321_be2e5e8db6f948ec907e27ff14e1cfa9.pdf