

<b>PERSONAL DETAILS</b>	<i>Name</i>	Emma L. Friesen
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	<i>Immigration status</i>	Australian citizen Netherlands resident (spouse of an EU citizen)
	<i>Online profiles</i>	<a href="#">Google Scholar</a> ; <a href="#">ORCID</a> ; <a href="#">ResearchGate</a>

- PROFESSIONAL  
& RESEARCH  
INTERESTS**
- Facilitating improvement in clinical practice and decision making skills through “learning by doing” and coaching activities;
  - Developing research capacity to improve dissemination and translation of evidence into clinical practice.
  - Design, use, and usability of Assistive, Rehabilitative, Therapeutic, and Health Technologies for independent living.

**EDUCATION**    **PhD Candidate, School of Health and Rehabilitation Sciences, The University of Queensland, Australia.** **2009-present**  
(Part-time & external candidature; thesis examination in March 2016.)

**Thesis title:** “It’s more than just a wheelchair that gets wet”: Usability of mobile shower commodes for adults with spinal cord injury.

Key duties and activities:

- Appraised evidence on mobile shower commodes (Class I Medical Devices) through an exploratory literature review (published);
- Captured key usability and performance features using qualitative methods involving commode users and Occupational Therapists (published);
- Utilised user-derived criteria to develop a new questionnaire testing commode usability (published); and
- Conducted a psychometric analysis of the questionnaire using applied statistical analysis (manuscript accepted, in press).

**Master Certified Coaching certification course (life and wellness coaching),**  
MentorCoach International **2015 - present**

**Master of Professional Education and Training (Vocational and Workplace Education and Training), Deakin University, Australia.** **2004**

**Thesis title:** Training for volunteers: Experiences of volunteers within the Queensland Ultimate Disc Association.

**Bachelor of Engineering (Manufacturing Systems) (Honours)**  
**Bachelor of Business (Marketing)**  
Queensland University of Technology, Australia. **1998**

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## PROFESSIONAL EXPERIENCE

**Research Officer, Paediatric Spinal Outreach Service (PSOS), Northcott, North Parramatta, Australia.** **2013-2015**

PSOS provides community-based rehabilitation services to adolescents with Spinal Cord Injury (SCI). In this role, I:

- Led an investigation into clinical service delivery to adolescents with SCI by allied health and nursing practitioners, using both qualitative and quantitative methods.
- Appraised current evidence on developing transition-readiness skills (life and self-care) in adolescents with disability, by reviewing over 300 publications;
- Led writing of three peer-reviewed manuscripts for publication (under review).

**Research Fellow, Primary and Community Health Research Unit (PCHRU), South Western Sydney Local Health District, New South Wales Health, Australia.** **2011-2014**

PCHRU was funded by the Division of Community Health to develop research capacity in Primary and Community Health staff. In this role, I:

- Coordinated the Researcher Mentoring Program involving fifteen project teams and around 40 allied health and nursing staff working in Community Health.
- Developed and delivered training workshops on writing research protocols, preparing applications for ethical review, and developing academic writing skills.
- Conducted, analysed, and reported on a survey across 150 Community Health staff.
- Collaborated with the Community Health Research Advisory Group on grant funding worth AUD \$200,000.
- Led writing of two peer-reviewed manuscripts (published) and multiple conference presentations on PCHRU's work.

**Rehabilitation Engineer, Assistive Technology & Seating, Clinical Technology Services (Biomedical Engineering Department), Northern Sydney Local Health Network, New South Wales Health, Australia.** **2005 – 2011**

As a Rehabilitation Engineer I provided expert Assistive Technology services (primarily wheeled mobility & seating) to clients within the Northern Sydney Local Health Network, and across NSW via the Statewide Spinal Cord Injury Service (NSW SSCIS). In this role I:

- Conducted clinical assessments and equipment trials of Assistive Technology to manage complex postural and pressure management needs.
- Provided supervision and engineering support for technical staff during in clinical interventions.
- Developed and delivered specialist education sessions in wheeled mobility, seating and skin integrity management to medical, allied health, and nursing personnel across New South Wales.
- Reviewed resources for the NSW SSCIS Spinal Seating Professional Development Program, at <http://www.health.nsw.gov.au/gmct/spinal/education.asp>

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**Rehabilitation Engineer, Rehabilitation Engineering Centre (REC), Royal Brisbane and Women's Hospital, Queensland Health, Australia.** **2003-2005**

As a Rehabilitation Engineer with the REC, I provided clinical and consulting services to clients with disability at the Royal Brisbane and Women's Hospital, Royal Children's Hospital, Queensland Paediatric Rehabilitation Service (QPRS) and Medical Aids Subsidy Scheme (MASS). In this role I:

- Designed and fabricated individualised seating systems in mobility devices (primarily wheelchairs) for severely disabled inpatient and outpatient clients.
- Provided engineering advice on wheelchair modifications, wheelchair maintenance, and safe transport to clients in government, community and private organisations across Queensland.
- Reviewed current approaches to wheelchair fleet maintenance in Queensland.
- Conducted inspections and basic maintenance on mobility equipment, and provided recommendations to Clinical Advisors on appropriate items for purchase and supply.

## **PROFESSIONAL MEMBERSHIPS AND VOLUNTEER WORK**

*Engineers Australia – College of Biomedical Engineering*

**Board Member** **2011-present**  
**Deputy Chair** **2012 - 2015**  
**Member** **2005-present**

*Engineers Australia - National Committee on Rehabilitation Engineering (NCRE)*

**Chair** **2011-2013**  
**Deputy Chair** **2010-2011**  
**Member** **2005-present**

*Australian Rehabilitation and Assistive Technology Association (ARATA)*

**Board Member** **2011-**

*Standards Australia Committee ME067: Mobility appliances for people with disabilities*

**Member representing ARATA** **2007-2014**

*International Organization for Standardization*

**Member representing Standards Australia:** **2007-2014**

- TC 173 Assistive Products for Persons with Disability (*ISO 7176 & 16840 series*).
- Joint Technical Ad hoc Committee for revision of *ISO Guide 71:2014 / CEN/CENELEC Guide 6: Guide for addressing accessibility in standards*.

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## ACADEMIC AWARDS AND GRANTS

- 2012**                    **Women in Biomedical Engineering Award**, Engineers Australia Biomedical College. AUD 2 000
- 2011**                    **Year of Humanitarian Engineering Travel Grant**, Engineers Australia Biomedical College. AUD 1 000

## RESEARCH FUNDING

- 2013**                    **Research Capacity Building Grant**, Primary and Community Health Research Unit (PCHRU) and the Community Health Research Advisory Group, South Western Sydney Local Health District. AUD 200 000. Collaborative effort with Elizabeth Comino, Lynn Kemp, Gawaine Powell-Davies, and Justin Duggan.
- 2012**                    **Grant to host the Symposium on wheelchair safety standards and monitoring in Darwin, Australia**. Engineers Australia. AUD 5000. Collaborative effort with Lloyd Walker, Peter Slattery, and David Hobbs.
- 2009**                    **PhD Travel Scholarship**, School of Health and Rehabilitation Sciences, The University of Queensland, Australia. AUD 3000
- 2003**                    **Early Career Researcher Grant** (awarded to Joanne Brownlee), Queensland University of Technology, Australia. AUD 10 000 total. Collaborative effort with Joanne Brownlee and Diane Nailon.

## TEACHING EXPERIENCE

- 2011 – 2014**            **Primary and Community Health Research Unit, South Western Sydney Local Health District, Division of Community Health**  
I coordinated a Researcher Mentoring Program involving around 40 nursing and allied health staff, and developed and delivered workshops and training materials on writing research protocols, preparing applications for ethical review, and developing academic writing skills.
- 2006-2011**            **Assistive Technology and Seating, Northern Sydney Local Health District**  
I developed and delivered specialist education sessions in wheeled mobility, seating and pressure management for medical, allied health and nursing personnel across New South Wales; at <http://www.aci.health.nsw.gov.au/networks/spinal-cord-injury/spinal-seating>
- 2006-2015**            **National Committee on Rehabilitation Engineering**  
I developed and delivered workshops and teaching sessions covering wheeled mobility, engineering design, measuring outcomes of interventions, and understanding service delivery in Assistive, Health, Rehabilitative, and Therapeutic Technologies.

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## SELECTED PUBLICATIONS

A full list of publications is available at [Google Scholar](#).

### Peer-reviewed journal papers (published or in press)

- Friesen, E.L.**, & Comino, E. J. (Accepted, In press). Research culture and capacity in community health services: results of a structured survey of staff. *Australian Journal of Primary Health*.
- Friesen, E.**, Comino, E.J., Reath, J., Derrett, A., Johnson, M., Powell Davies, G., Liaw, S.T., Kemp, L. (2014). Building research capacity in south-west Sydney through a Primary and Community Health Research Unit. *Australian Journal of Primary Health*, 20(1), 4-8. doi: 10.1071/PY12081
- Friesen E.L.**, Theodoros D. and Russell T.G. (2016). Assistive Technology devices for toileting and showering used in Spinal Cord Injury rehabilitation - a comment on terminology (Editorial). *Disability and Rehabilitation: Assistive Technology*, 11(1), 1-2. doi:10.3109/17483107.2014.984779
- Friesen, E.L.**, Russell, T.G., & Theodoros, D. (2015). Testing usability of Mobile Shower Commodes for adults with Spinal Cord Injury: research method and overview. *Studies in Health Technology and Informatics*, 217, 98-105. doi: 10.3233/978-1-61499-566-1-98
- Friesen, E.L.**, Theodoros, D. and Russell, T.G. (2015). Development, construction, and content validation of a questionnaire to test mobile shower commode usability. *Topics in Spinal Cord Injury Rehabilitation*, 21(1), 77-86. doi: 10.1310/sci2101-77
- Friesen, E.L.**, Theodoros, D. and Russell, T.G. (2015). Usability-for-one. *Work*, 52(1), 211-213. doi: 10.3233/WOR-152003
- Friesen, E.L.**, Theodoros, D., & Russell, T.G. (2015). Use, performance and features of mobile shower commodes: perspectives of adults with SCI and expert clinicians. *Disability and Rehabilitation: Assistive Technology*, 10(1), 38-45. doi: 10.3109/17483107.2013.832413
- Friesen, E.L.**, Walker, L., Layton, N., Astbrink, G, Summers, Michael, & De Jonge, Desleigh. (2015). Informing the Australian government on AT policies: ARATA's experiences. *Disability and Rehabilitation: Assistive Technology*, 10(3), 236-239. doi: 10.3109/17483107.2014.913711
- Friesen, E.L.**, Phuah, T, & Comino, E. J. (2014). Writing conference abstracts: a guide for Rehabilitation and Assistive Technology Practitioners. *Journal of Assistive, Rehabilitative and Therapeutic Technologies*, 2(23233), 1-3. doi: 10.3402/jartt.v2.23233
- Friesen, E.**, Theodoros, D., & Russell, T. (2013). Clinical assessment, design and performance testing of mobile shower commodes for adults with spinal cord injury: an exploratory review. *Disability and Rehabilitation: Assistive Technology*, 8(4), 267-274. doi: 10.3109/17483107.2012.704656
- Soccio, J., Brown, M., Comino, E., & **Friesen, E.L.** (Accepted, in press). Pap smear screening, abnormalities and psychosocial risk factors among two cohorts of women in south western Sydney. *Journal of Advanced Nursing*.

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### **Manuscripts for peer-reviewed journals - currently under review**

de Paula, A., & Friesen, E.L. (Under review). *Towards revision of life domains in the Kids Spinal Cord Injury Living Skills (KidSCILS) Framework: a pilot content analysis of clinical records.*

Friesen, E.L., Theodoros, D., & Russell, T. G. (Under review). *An instrument to measure mobile shower commode usability: the eMAST 1.0.*

Friesen, E.L., Slattery, P., & Walker, L. (Under review). *Transition readiness assessment instruments for adolescents with physical disability: where is Assistive Technology?*

### **Manuscripts for peer-reviewed journals - currently in draft**

Friesen, E.L. & de Paula, A. (Draft). *Services accessed by adolescents with spinal cord injury in New South Wales: A clinical record audit using the Medical Home model.*

Friesen, E.L., Theodoros, D., & Russell, T. G. (Draft). *An exploration of mobile shower commodes usability using the electronic Mobile shower commode ASsessment Tool (eMAST) 1.0.*

Friesen, E.L., Theodoros, D., & Russell, T. G. (Draft). *Assessing Assistive Technology usability with the System Usability Scale and Single-adjective question.*

### **Published reports**

Comino, E., Friesen, E., & Duggan, J. (2014). *Primary and Community Health Research Unit – PCHRU Final report, 2011-2014.* Liverpool: SWSLHD Division of Community Health.

Comino, E., Friesen, E., & Duggan, J. (2013). *Primary and Community Health Research Unit – PCHRU Progress Report – January – June, 2013.* Retrieved from SWSLHD Division of Community Health, <http://www.pchru.com/wp-content/mediauploads/131022-PCHRU-Progress-Report-web.pdf>

Friesen, E.L. and de Paula, A.R. (2015). *The Building Skills for Life Project: Final project report for the Baxter International Foundation.* North Parramatta: Northcott.

Layton, N., Steel, E.J, Friesen, E.L. and Phuah, T. (2015). *ARATA's response to the NDIA's Assistive Technology Discussion Paper.* Sylvan: Australian Rehabilitation and Assistive Technology Association. Retrieved from [www.arata.org.au/download/NDIS/arata.response.NDIA.AT.discussion.paper\\_27022015.pdf](http://www.arata.org.au/download/NDIS/arata.response.NDIA.AT.discussion.paper_27022015.pdf)

Walker, L. & Friesen, E.L. (2015) *Rehabilitation Engineering and Assistive Technology: NCRE response to the NDIA Discussion Paper.* Canberra: Engineers Australia. Retrieved from [http://www.engineersaustralia.org.au/sites/default/files/shado/Learned%20Groups/National%20Committees%20and%20Panels/Rehabilitation%20Engineering/ndia\\_atdiscpaper\\_ncre\\_response\\_feb2015.pdf](http://www.engineersaustralia.org.au/sites/default/files/shado/Learned%20Groups/National%20Committees%20and%20Panels/Rehabilitation%20Engineering/ndia_atdiscpaper_ncre_response_feb2015.pdf)