**UQ Winter Research Project Description**

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| **Project title:** | **Client and therapist perceived experience and impact of an online therapy toolkit on preparedness for learning to drive.** |
| **Project duration, hours of engagement & delivery mode** | Number of students: 2 students, ideally from disciplines within SHRS  Duration of the project: 4 weeks (full duration of winter program)  Hours of Engagement: ~ 30 hours per week  Engagement/Delivery Mode: Project will ideally be completed under on-site working arrangements in Brisbane, however remote or hybrid arrangements will be considered. |
| **Description:** | **Project background**  Most young adults who live with psychosocial disabilities have a goal to learn to drive. Driving is a complex activity requiring high level visual, cognitive, and physical function, and can be very challenging for young adults living with disabilities including autism spectrum disorder, ADHD, anxiety disorders, learning difficulties and mild intellectual impairments. With the roll-out of the National Disability Insurance Scheme, exploring the feasibility of “learning to drive” has become a possibility for many young Australians with these conditions. In the USA, it is estimated that approximately 62% of the population with autism spectrum disorder have high functioning ASD, more than half will pursue learning to drive, and one in three teens with ASD will become licenced drivers[[1]](#endnote-1).  Because of neurological changes and reduced connectivity within the brain, when compared with neuro-typical teens/youth, research has found that learning to drive with autism has common challenges such as[[2]](#endnote-2):   * learner drivers require three times longer to learn to drive. * make more errors than peers in visual scanning, speed management, lane maintenance and adjustment to stimuli. * driving habits are typically that they drive less and tend to drive more in the local area to defined routes and destinations.   Driving Well Occupational Therapy, a small business in Brisbane providing driving and vehicle modifications services, partnered with Dr Miriam Monahan from the Driver Rehabilitation Institute in USA to identify assessment processes and resources to better assess how these conditions may be impacting on the young person’s ability to learn to drive. The “potential to drive” assessment approach was introduced to Australian occupational therapy driver assessors (OTDAs) and specialised driving instructors (SDIs), along with the Australian contextualisation of the “Drive Focus” app – designed and evidence based to improve visual search and reaction time skills.  Within this assessment approach a decision tree supports OTDAs to determine the assessment outcome, where clients will be categorised into one of four groups:   1. No disability related deficits and should proceed with mainstream channels for learning to drive. 2. Ready for learning to drive now – recommend commencing a specialised driving training program. 3. Not ready for learning to drive now – recommend therapeutic intervention, life skills development, maturing, and possibly try again in the future. 4. Disability is impacting significantly on learning to drive, and driving is not a feasible goal; recommend to support young adult in developing other community mobility skills.   For “potential to drive” clients with an assessment outcome falling into “group 3” above there are no structured or evidence based therapeutic/ intervention programs available in USA or Australia to help young adults improve underlying skills needed for driving, other than the Drive Focus app. Clients falling into “group 2” often also have lengthy waiting times to access funding support through their NDIS Plan before being able to participate in a specialised driving training program. Many OTDAs do not have a traditional background in working in the paediatric setting and lack clinical experience in working with clients with ASD and are often unsure how to help their clients to develop skills needed for learning to drive.  Driving Well Occupational Therapy determined that a therapy program was required for clients in outcome groups 2 and 3, to build foundational skills in a targeted way that was based on researched learning preferences of young people with ASD and psychosocial disabilities; the goal of the therapeutic intervention is to increase readiness and preparedness for specialised driving lessons with a SDI and optimise skill acquisition.  Driving Well Occupational Therapy developed the “Get Driving” therapy program and deliver this service to clients, and also offer this program as an online therapy toolkit, for the purposes of:   1. Clients to be able to access to the toolkit at home, so they can have further practice opportunities with parents and support workers. 2. Providing other OTDAs a “ready-to-go” comprehensive therapeutic program to use with their clients.   Piloting of the therapy program and toolkit is delivering promising results; pre-learner and learner drivers are developing fundamental skills needed for driving, developing confidence, having fun, and showing increasing readiness for driving.  **Aim:** The aim of this study is to explore the perceived user experience and impact of the online curriculum on preparedness for driving. These user experience findings will be utilised for grant applications to continue development of the toolkit and research the effectiveness of the driving therapy activities.  **Research questions / hypothesis:** It is hypothesised that clients who use the driving therapy toolkit will make more gains with their driving lessons than clients who do not use the toolkit; further it is purported that clients who participate in an individual therapy program AND use the toolkit, will have a faster rate of skill acquisition, and increase likelihood of achieving their goal of gaining their provisional driver’s licence.  The research questions of this study include:   1. Does the online curriculum improve student self-reported self-efficacy for practice? 2. How satisfied were clients/parents and therapists with the online curriculum? 3. What is the user (client/parent and therapist) perceived experience and impact of the pilot driving therapy toolkit on their preparedness for learning to drive?   **Methodology:** Students will work with university and industry partners to understand the therapy program and toolkit, including participation in a driving therapy session; students may be involved with supporting clients/parents and therapists to access and use the toolkit; students may assist in updating of resources to enhance user experience of the toolkit; students will conduct robust literature review and present findings; students will develop a suitable user experience questionnaire, including pre and post evaluation of the online therapy activities. |
| **Expected outcomes and deliverables:** | This project will offer students an opportunity to be part of a research/industry partnership team and participate in the establishment of a research project from the early stages of development.  Students will gain skills in conducting robust literature searches, reviews, and writing background sections for grants. Student will also develop associated skills such as construction and management of a user experience study and assistance to prepare for focus group/s to explore client and therapist perspectives, to be facilitated with international university partners later in 2023.  Students will be asked to additionally produce a written review and present the key findings to interested parties at the completion of the project. As this project represents a partnership between research and industry, students and supervisors will promote the use of industry partnership research within SHRS. |
| **Suitable for:** | This project is open to applications from UQ enrolled School of Health and Rehabilitation students. |
| **Primary Supervisor:** | Dr Melanie Hoyle, Associate Professor Jacki Liddle & Ms Jenny Gribbin (Industry Partner) |
| **Further info:** | Further information can be sought from Melanie Hoyle – m.hoyle@uq.edu.au. It is not a requirement to contact the supervisory team prior to applying. |

1. Autism and Developmental Disabilities Monitoring Network 2012, Huang et al 2012, Curry et al 2017. [↑](#endnote-ref-1)
2. Curry, A. E., Yerys, B. E., Huang, P., & Metzger, K. B. (2017). Longitudinal study of driver licensing rates among adolescents and young adults with autism spectrum disorder. *Autism*, 1-10. doi:10.1177/1362361317699586 [↑](#endnote-ref-2)