



THE UNIVERSITY
OF QUEENSLAND
AUSTRALIA

CREATE CHANGE

Successfully engaging students with a disability in sport on campus

2023 UniSport Australia National Conference

Hotel Grand Chancellor, Brisbane

16.05.23

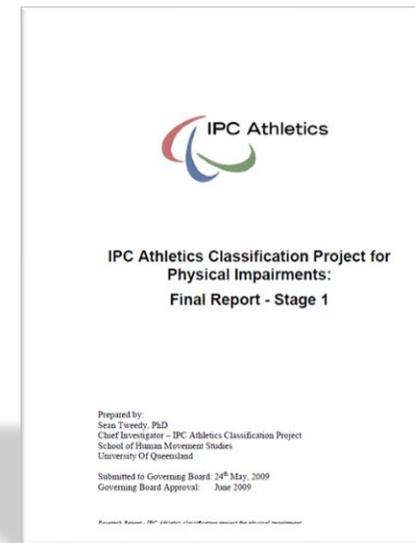
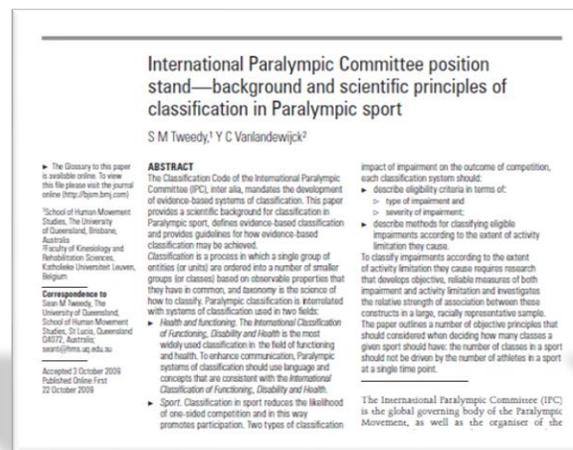
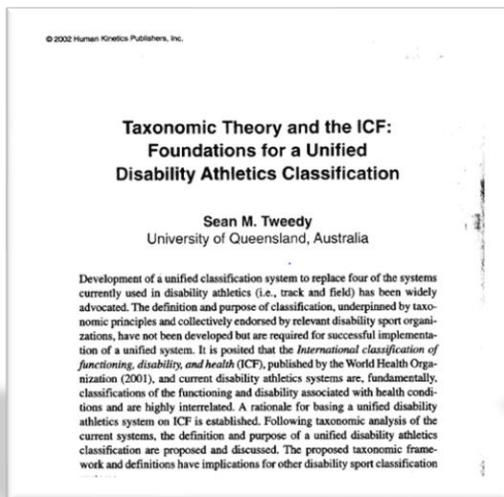
A/Prof Sean Tweedy

Who am I?

- Work / service history:
 - Sporting Wheelies and Disabled Association (1984-1995)
 - Para sport coach and International Classifier in Para sport since 1993
 - Classified 4 Paralympic Games and 4 World Championships, incl HOC at the 2012 London Paralympic Games
- Currently:
 - Principal Investigator ParaSTART
 - Research lead for School's Para sport and Adapted Physical Activity research group
 - Principal Investigator UQ-IPC Paralympic Classification Research and Development Centre;
 - Member, IPC Classification Compliance and Oversight Committee (2008-present)
 - Member, World Para Athletics Classification Advisory Group
 - 65 peer-reviewed scientific publications in this area, \$4.3M in funding & graduated 15 PhD students, many making their own mark in the area



Jeremy Muir & Sean Tweedy, Sporting Wheelies and Disabled Assoc, 1987.



Disability – some context

Prevalence of disability

1 in 6

(18%) people in Australia
have disability
(about 4.4 million people)

1 in 3

(32%) people with
disability have severe or
profound disability
(about 1.4 million)

For 1 in 4

(23%) people with
disability, their main form
of disability is mental or
behavioural

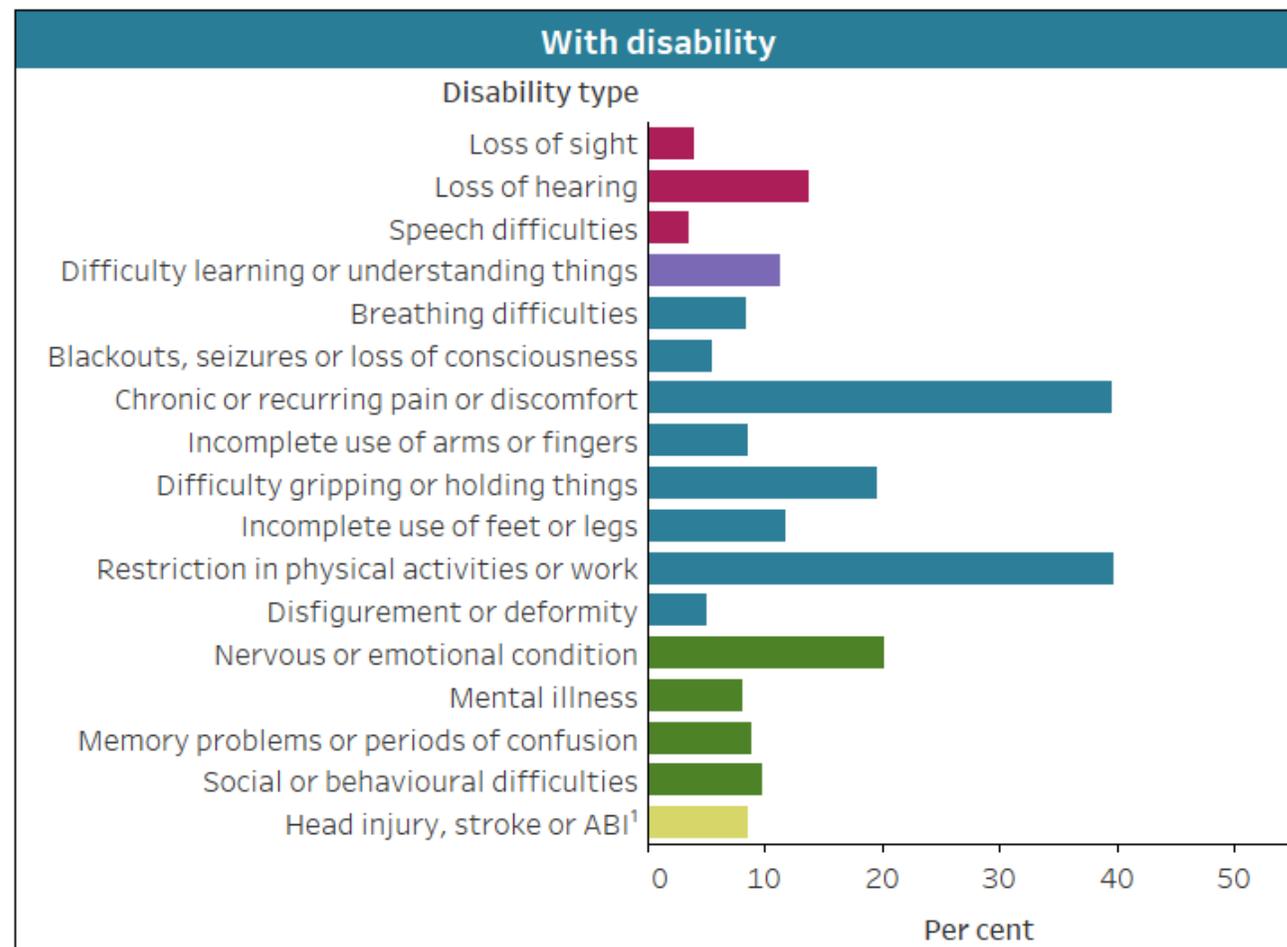
Figure PREVALENCE.6: Disability type of people with disability, by age group, 2018

Select age group

- 0–24
- 25–64
- 65+
- Total

Disability group

- Sensory or speech
- Intellectual
- Physical
- Psychosocial
- Head injury, stroke or ABI¹



Disability – University context

https://www.aihw.gov.au/reports/disability/people-with-disability-in-australia/contents/people-with-disability/prevalence-of-disability#dis_type

¹Head injury, stroke or acquired brain injury.

Source: ABS 2019b; see also Table PREV12.

<http://www.aihw.gov.au>

Disability – University context

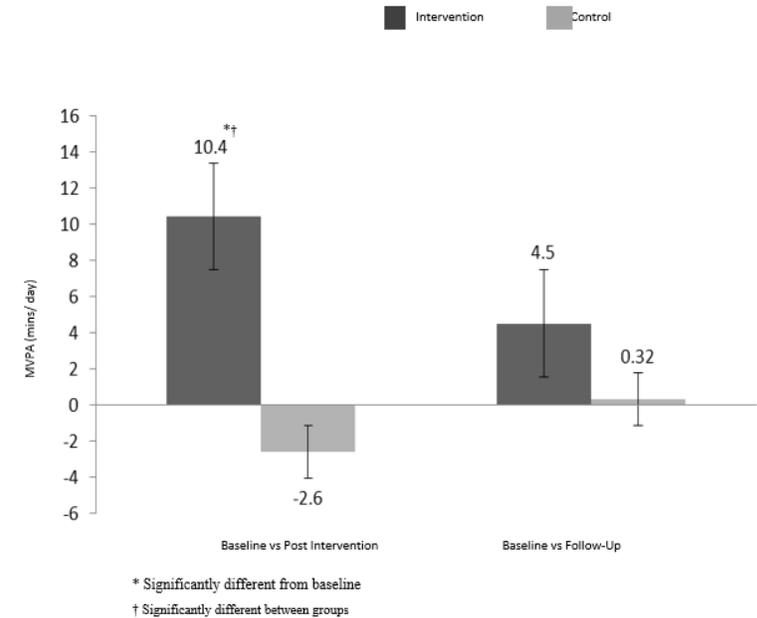
1	Institution	Students with a disability	All Domestic Students	Percentage Students with a disability
2	University of South Australia	4,391	30,858	14.23%
3	The Australian National University	1,853	15,138	12.24%
4	The University of Adelaide	2,410	20,105	11.99%
5	Federation University Australia ⁽¹⁾	901	8,153	11.05%
6	University of Wollongong	2,135	19,426	10.99%
7	The University of Queensland	3,694	34,108	10.83%
8	Murdoch University	1,727	16,028	10.77%
9	The University of Western Australia	1,955	18,911	10.34%
10	La Trobe University	2,758	28,391	9.71%
11	RMIT University	3,797	41,060	9.25%
12	University of Divinity	117	1,308	8.94%
13	University of the Sunshine Coast	1,367	15,624	8.75%
14	Southern Cross University	1,331	15,742	8.46%
15	University of Southern Queensland	1,928	22,805	8.45%
16	Non-University Higher Education Institution	567	6,826	8.31%
17	Griffith University	3,417	41,300	8.27%
18	Macquarie University	2,764	33,627	8.22%
19	Monash University	3,557	45,110	7.89%
20	Flinders University	1,622	20,791	7.80%
21	Bond University	234	3,103	7.54%
22	James Cook University	1,028	13,725	7.49%
23	The University of Melbourne	3,046	41,210	7.39%
24	University of New South Wales	2,903	39,672	7.32%
25	The University of Sydney	2,801	39,499	7.09%
26	CQUniversity	1,384	19,739	7.01%

1	Institution	Students with a disability	All Domestic Students	Percentage Students with a disability
27	The University of Notre Dame Australia	845	12,360	6.84%
28	The University of New England	1,582	23,219	6.81%
29	University of Tasmania	2,280	33,812	6.74%
30	Non-University Higher Education Institution	80	1,187	6.74%
31	Australian Catholic University	1,889	28,195	6.70%
32	The University of Newcastle	2,094	31,362	6.68%
33	University of Technology Sydney	2,074	31,967	6.49%
34	University of Canberra	812	12,706	6.39%
35	Edith Cowan University	1,518	24,120	6.29%
36	Queensland University of Technology	2,739	44,011	6.22%
37	Charles Sturt University	2,104	35,589	5.91%
38	Swinburne University of Technology	1,805	31,665	5.70%
39	Curtin University	2,038	36,948	5.52%
40	Non-University Higher Education Institution	1,937	38,535	5.03%
41	Deakin University	2,414	49,308	4.90%
42	Charles Darwin University	548	11,626	4.71%
43	Non-University Higher Education Institution	140	3,008	4.65%
44	Western Sydney University	1,911	41,222	4.64%
45	Private Universities (Table C) and Non-Uni	213	4,749	4.49%
46	Non-University Higher Education Institution	234	7,109	3.29%
47	Torrens University Australia	301	10,714	2.81%
48	Victoria University	414	17,244	2.40%
49	Non-University Higher Education Institution	27	1,520	1.78%
50	Education	0	18	0.00%
51		83,686	1,124,453	7.44%

Source: Australian Government

The Adapted Physical Activity Program

Evidence-based home & community-based Physical activity promotion for People with disabilities



Clanchy, K. M., Tweedy, S. M., & Trost, S. G. (2016). Evaluation of a Physical Activity Intervention for Adults with Brain Impairment: A Controlled Clinical Trial. *Neurorehabil Neural Repair*, 30(9), 854-865. doi:10.1177/1545968316632059



ParaSTART

Longitudinal study evaluating responses of people with cerebral palsy and high support needs to performance-focussed sports training

Background: low and high support needs Para aths

Name: Lakeisha Patterson
Age: 23y.o
Diagnosis: Cerebral Palsy
Para swim Class: S9
Club: Belgravia Swim Club, Burpengary
Mobility: walks without aids
Self-care: Fully independent
Favourite event: 400m Freestyle
Personal Best: 4:36.68



Name: Jamie Booth
Age: 22y.o
Diagnosis: Cerebral Palsy
Para swim Class: S2
Club: UQ ParaSTART
Mobility: Electric Wheelchair
Self care: Personal support worker
Event: 50m Freestyle
Personal Best: 1min 26.4 sec (5th fastest time in world in 2019)



- ❖ Communication – profoundly deaf
- ❖ Undiagnosed exertion-related gastro-oesophageal reflux disorder (GORD)



Lakeisha vs Jamie

- Despite the fact that Lakeisha and Jamie are clearly vastly different, they have some things in common:
 - ❖ Both “people with disabilities”;
 - ❖ Both are “Para swimmers “
 - ❖ Both swim world class times
- In Para sport the term “High support needs” is helpful. Using Lakeisha and Jamie to illustrate:
 - ❖ Lakeisha is not an athlete with high support needs, but that is not synonymous with no support needs – she may have low, moderate or no support needs;
 - ❖ Jamie is an athlete with high support needs – wheeled mobility and requires personal support for tasks of daily living;
 - ❖ People who market Para sport often use the “*she-could-beat-an-average-non-disabled-person*” standard to establish the legitimacy of a Para sport performance. In regard to this standard:
 - Lakeisha exceeds this easily - passes with flying colours
 - Jamie does not.
 - ❖ In medical terms, "High Support Needs" usually means that co-morbidities are complex, occur frequently, require ongoing management and mismanagement has significant adverse consequences.
 - ❖ In legal terms:
 - Para athletes who do not have high support needs should be able to be accommodated in nondisabled swimming squad with reasonable adjustment.
 - A head coach who turned Lakeisha away would probably be guilty of discrimination.
 - A head coach who did not have access to the correct facilities and multi-professional advice that we do would be foolhardy and irresponsible if they did not turn Jamie away.
- Among the aspiring Paralympic and in Australia, those with high support needs:
 - ❖ Face significant barriers to safe, enjoyable sports entry;
 - ❖ Conventional best practice methods for enhancing performance that are described in the literature are likely to be unsafe, ineffective or impossible for the swimmers to execute

- The Para Sports Training And Research Team (ParaSTART)
- Longitudinal intervention trial running since 2017
- Three participants severe cerebral palsy (GMFCS level IV). At enrolment were 15-16 years old, attending school, not meeting physical activity guidelines, not previously trained for any sport and medically fit to participate;
- As at today all participants continuing to train and compete and are still monitored regularly using standardised battery of tests;
- Training program developed and delivered by a core group with qualifications in swimming coaching, physiotherapy and exercise physiology.
- This group is supported by a medical doctor, dietician, sport psychologist and personal support workers.



Some key take-aways...



THE UNIVERSITY
OF QUEENSLAND
AUSTRALIA

CREATE CHANGE

Thank You and Questions

Associate Professor Sean Tweedy
School of Human Movement and Nutrition Sciences
s.tweedy@uq.edu.au
07 3365 6638
0414881024

www.habs.uq.edu.au