

## **OTA WA ABI & Neurology SIG**

This is a facilitated discussion about the journal article 'Principles of neurorehabilitation after stroke based on motor learning and brain plasticity mechanisms.' (Maier et al., 2019). This is a conceptual analysis which brings together neuroscientific literature relevant to stroke rehabilitation to identify effective neurorehabilitation approaches. Due to the nature of the publication, a McMasters review will not be used to review the paper. Rather, participants are asked to read the article and note down their answers to the questions provided (below) which will be discussed together with other participants.

The discussion will be facilitated by Jacqui Hunt BSc(OT) Master Clin Sc (Disability) PhD Candidate. Jacqui has worked as an OT for 28 years and she has held diverse positions in both clinical, management and academic capacities, spanning community, acute care and education settings. Jacqui has worked at Edith Cowan University since 2008 in teaching and research and her areas of specialty are paediatrics, neuroscience and neurorehabilitation.

This session will be a facilitated discussion, whereby participants are asked to complete the following prior to attending:

1. Consider the following points of discussion BEFORE reading the journal article.

- What principles of treatment do you use to guide your current occupational therapy interventions?
- Are your interventions supported by evidence?
- What principles of neurorehabilitation influence your practice?

2. READ the journal article found here: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6928101/>

Maier M, Ballester BR, Verschure PFMJ. Principles of Neurorehabilitation After Stroke Based on Motor Learning and Brain Plasticity Mechanisms. *Front Syst Neurosci.* 2019 Dec 17;13:74. doi: 10.3389/fnsys.2019.00074. PMID: 31920570; PMCID: PMC6928101.

3. AFTER reading the article, re-consider the above points of discussion and consider:

- Are the principles of neurorehabilitation outlined in the paper common in current Australian OT practices?
- Do your therapeutic interventions incorporate any (or all) of the principles highlighted in the article? Which ones?
- What would you need to change/develop in your OT practice to better reflect these principles? What would help you to change/develop practice? What barriers might you face?
- What (if any) intervention techniques/specific practices could you introduce into your neurorehabilitation in the immediate future?