



Facilitating neuroplasticity: evidence-based novel interventions for occupational therapists

AUTHOR(S)

Johanne Walker

PUBLICATION DATE

01-01-2011

HANDLE

[10536/DRO/DU:30041196](#)

Downloaded from Deakin University's Figshare repository

Deakin University CRICOS Provider Code: 00113B

Deakin Research Online

This is the published version:

Walker, Johanne 2011, Facilitating neuroplasticity: evidence-based novel interventions for occupational therapists, in *Proceedings of the 24th Occupational Therapy Australia National Conference and Exhibition 2011*, Occupational Therapy Australia, Gold Coast, Qld.

Available from Deakin Research Online:

<http://hdl.handle.net/10536/DRO/DU:30041196>

Every reasonable effort has been made to ensure that permission has been obtained for items included in Deakin Research Online. If you believe that your rights have been infringed by this repository, please contact drosupport@deakin.edu.au

Copyright : 2011, Occupational Therapy Australia

Facilitating Neuroplasticity:

Evidence-Based Novel Interventions for Occupational Therapy




Johanne Walker: Deakin University, Geelong
E: johanne.walker@deakin.edu.au

brainline.org

www.deakin.edu.au

Neuroplasticity:

Brain's life-long ability to change



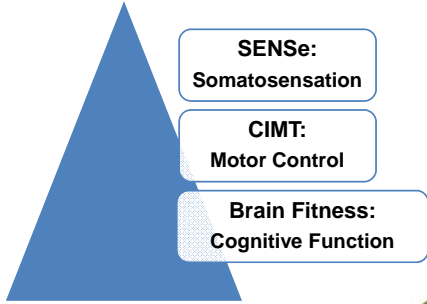
readyforlearning.wordpress.com

www.deakin.edu.au

Common Principles:

❖ <i>Motivating</i> goal-directed tasks	❖ Focussed <i>attention</i>
❖ Intensive <i>repetition</i> in training	❖ <i>Massed</i> practice
❖ Activity that <i>challenges</i> the system	❖ <i>Variety</i> in task or environment
❖ Targeted <i>feedback</i>	

Techniques:



SENSe:
Somatosensation


CIMT:
Motor Control

Brain Fitness:
Cognitive Function


www.deakin.edu.au

SENSe: Study of the Effectiveness of Neurorehabilitation on Sensation

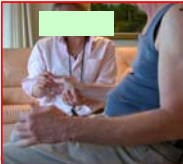
- ❖ Intensive component training
- ❖ Client-centred training



Texture Discrimination Training



Tactile Object Recognition Training




Limb Position Sense Training


Constraint-Induced Movement Therapy:

- ❖ Targets diminished use of affected arm
- ❖ Constrains less affected arm





- ❖ Modifications to protocol
- ❖ Addresses client's goals
- ❖ ?more acute clients

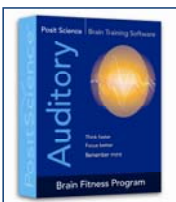





Brain Fitness:

- ❖ Addresses cognitive decline in normal ageing
- ❖ Six computer exercises
- ❖ Improves memory and attention
- ❖ Research :?effects on people with ABI







Brain Fitness Training

www.deakin.edu.au



The Future:





www.deakin.edu.au