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Lesson learnt from an EEG-based experiment with ADHD children in Malaysia (Conference Paper)

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Abstract

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There are growing interests among researchers worldwide pertaining to efficacy of electroencephalography (EEG) as diagnostic tools and noninvasive treatment for children with special needs. However, there are very limited studies discuss the efficacy of EEG-based experiment protocols among young children with ADHD particularly from the perspective of human-computer interaction methodologies. Thus, this paper provides some background on related studies in EEG for children with attention-deficit/hyperactive disorder (ADHD) and some insights on Malaysia experience with regards to ADHD detection and intervention programs. The lesson learnt presented in this paper highlights the factors that affect young children participation in EEG-based experiments that is relevant and beneficial for researchers who are working with children with special needs. © Springer International Publishing Switzerland 2016.

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-
- 1 (2013) *Diagnostic and Statistical Manual of Mental Disorders*. Cited 3176 times.
5th edn. Washington, DC
-
- 2 Selikowitz, M.
(2009) *ADHD: The Facts*. Cited 12 times.
2nd edn. Oxford University Press Inc., New York
-
- 3 Russell-Chapin, L., Kemmerly, T., Liu, W.-C., Zagardo, M.T., Chapin, T., Dailey, D., Dinh, D.
The Effects of Neurofeedback in the Default Mode Network: Pilot Study Results of Medicated Children with ADHD

(2013) *Journal of Neurotherapy*, 17 (1), pp. 35-42. Cited 6 times.
doi: 10.1080/10874208.2013.759017

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-
- 4 Lubar, J.F., Shouse, M.N.
EEG and behavioral changes in a hyperkinetic child concurrent with training of the sensorimotor rhythm (SMR) - A preliminary report

(1976) *Biofeedback and Self-Regulation*, 1 (3), pp. 293-306. Cited 177 times.
doi: 10.1007/BF01001170

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-
- 5 Lubar, J.F.
Discourse on the development of EEG diagnostics and biofeedback for attention-deficit/hyperactivity disorders

(1991) *Biofeedback and Self-Regulation*, 16 (3), pp. 201-225. Cited 254 times.
doi: 10.1007/BF01000016

[View at Publisher](#)
-
- 6 Hammond, D.C.
What is Neurofeedback: An Update

(2011) *Journal of Neurotherapy*, 15 (4), pp. 305-336. Cited 61 times.
doi: 10.1080/10874208.2011.623090

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-
- 7 Ghassemi, F., Hassan, M., Tehrani-Doost, M., Abootalebi, V.
Using non-linear features of EEG for ADHD/normal participants' classification

(2012) *Procedia - Social and Behavioral Sciences*, 32, pp. 148-152. Cited 6 times.
<http://www.sciencedirect.com/science/journal/18770428/1>
doi: 10.1016/j.sbspro.2012.01.024

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-
- 8 Niv, S.
Clinical efficacy and potential mechanisms of neurofeedback

(2013) *Personality and Individual Differences*, 54 (6), pp. 676-686. Cited 36 times.
doi: 10.1016/j.paid.2012.11.037

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