

EARNEST WORKSHOP "NEUROLOGICAL AND COGNITIVE TESTING AT SCHOOL AGE"

UNIVERSITY MEDICAL CENTRE GRONINGEN, GRONINGEN, THE NETHERLANDS,
3-5TH OCTOBER 2005

Organisation: Mijna Hadders-Algra, Groningen
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Purpose:

To introduce to health professionals standardized and detailed methods for the assessment of the functional integrity of the central nervous system.

Workshop summary:

Participants will learn to assess neuromotor behaviour by means of:

1. The Touwen neurological assessment (Touwen, 1979). This standardized and age-specific neurological assessment allows for the assessment of minor neurological dysfunction.
2. Luria's Flat-Fist-Edge (1966) test: a test which aims at evaluating some aspects of frontal lobe function (complex and anticipatory motor behaviour).

Participants will learn to assess specific cognitive functions:

1. Three domains of the NEPSY battery (Korkman 1997):
 - Executive functions (Tower test).
 - Memory (for Faces, Memory for Names, Narrative Memory).
 - Language (Phonological processing, Speeded naming, Comprehension of instructions)
2. Additional Verbal paired associate task (with immediate and delayed recall) in order to increase sensitivity of memory/learning testing. For the same reason, a delayed recall condition will be used with the NEPSY Recall of Story subtest.
3. Attention: Test of Everyday Attention for Children (TEA-Ch; *e.g.* Manly et al. 2001)
4. Wechsler Abbreviated Scale of Intelligence (WASI) in order to get an estimate of Verbal, Performance and Full Scale IQ scores.

Learner-based course objectives:

1. Knowledge on the Touwen assessment technique and significance of findings
2. Knowledge on the Luria test and significance of findings
3. Knowledge on the specific cognitive function tests: technique and significance of findings

Obligatory reading (will be provided)

- Hadders-Algra M. Two distinct forms of minor neurological dysfunction: perspectives emerging from a review of data of the Groningen Perinatal Project. *Dev Med Child Neurol* 2002; 44: 561-71
- Hadders-Algra M. Developmental Coordination Disorder: Is clumsy motor behaviour caused by a lesion of the brain at early age? *Neural Plast* 2003; 10: 39-50.
- Manly T, Anderson V, Nimmo-Smith I, Turner A, Watson P, Robertson IH. The differential assessment of children's attention: the Test of Everyday Attention for Children (TEA-Ch), normative sample and ADHD performance. *J Child Psychol Psychiatry* 2001; 42: 1065-81.
- Olsen P, Vainionpää L, Paakko E, Korkman M, Pyhtinen J, Jarvelin M-R. Psychological findings in preterm children related to neurologic status and magnetic resonance imaging. *Pediatrics* 1998; 102: 329-336.

- Sattler JM. Assessment of Children by J.M. Sattler - 3rd edition. San Diego, Calif: Jerome M. Sattler Publisher Inc, 1992. (or comparable book a psychological testing in children)
- Touwen BCL. Examination of the child with Minor Neurological dysfunction. Clin Dev Med No 71, London: Heinemann Medical Books, 1979. (book no longer available; contact Groningen if you cannot get hold of a copy)
- Umetsu A, Okuda T, Fujii T et al. Brain activation during the fist-edge-palm test: a functional MRI study. NeuroImage 2002;17:385-392

Programme

Monday October 3rd 2005

- 9.00 – 10.00 Introductory lecture on the Touwen assessment (MHA)
- 10.00 – 10.30 Coffee break
- 10.30 - 11.45 Demonstration Touwen assessment – discussion of technique and findings (MHA)
- 11.45 - 12.00 Coffee
- 12.00 – 13.00 Assessment of a video of a Touwen assessment (MHA)
- 13.00 – 14.00 Lunch
- 14.00 - 15.30 Introduction into cognitive testing (EI)
- 15.30 – 16.00 Tea break
- 16.00 – 17.15 Cognitive testing, continued (EI)

Tuesday October 4th 2005

- 9.00 – 10.15 Cognitive testing, continued (EI)
- 10.15 - 10.45 Coffee break
- 10.45 – 12.00 Cognitive testing, continued (EI)
- 12.00 – 13.00 Lunch
- 14.00 - 15.15 Assessment of video's of Touwen assessment (MHA)
- 15.15 – 15.45 Tea break
- 15.45 - 16.15 Luria's test (MHA)
- 16.15 - 17.15 Cognitive testing, continued (EI)

Wednesday October 5th 2005

9.00 – 10.15 Demonstration Touwen assessment – further discussion of technique and findings
(MHA)

10.15 - 10.45 Coffee break

10.45 – 12.00 Assessment of video's of Touwen assessment (MHA)

12.00 – 13.00 Lunch

14.00 - 15.15 Assessment of video's of Touwen assessment (MHA)

15.15 – 15.45 Tea break

15.45 - 17.00 Assessment of video's of Touwen assessment (MHA)

17.00 - 17.15 Fine-tuning of recording techniques; appointments about feedback in order to
achieve reliable results.