

## Appendix 1: Pubmed search strategy

((((stroke[MeSH] OR intracranial embolism and thrombosis[MeSH] OR intracranial arteriosclerosis[MeSH] OR dementia, vascular[MeSH] OR cerebrovascular disorders[MeSH:noexp] OR basal ganglia cerebrovascular disease[MeSH] OR brain ischemia[MeSH] OR carotid artery diseases[MeSH] OR cerebral small vessel disease[MeSH] OR brain injuries[MeSH]) OR (stroke[Title/Abstract] OR cerebrovascular[Title/Abstract] OR post stroke[Title/Abstract] OR poststroke[Title/Abstract] OR cerebral ischaemia\*[Title/Abstract] OR cerebral ischemia\*[Title/Abstract] OR brain ischaemia\*[Title/Abstract] OR brain ischemia\*[Title/Abstract] OR ischemic attack\*[Title/Abstract] OR ischaemic attack\*[Title/Abstract] OR ischemic event\*[Title/Abstract] OR ischaemic event\*[Title/Abstract] OR cerebral infarct\*[Title/Abstract] OR brain infarct\*[Title/Abstract] OR cva[Title/Abstract] OR cerebral vascular[Title/Abstract] OR brain injur\*[Title/Abstract]) OR ((cerebral[Title/Abstract] OR cerebellar[Title/Abstract] OR brain\*[Title/Abstract] OR vertebrobasilar[Title/Abstract]) AND (infarct\*[Title/Abstract] OR ischemi\*[Title/Abstract] OR ischaemi\*[Title/Abstract] OR thrombo\*[Title/Abstract] OR emboli\*[Title/Abstract] OR apoplexy[Title/Abstract]))) AND ((cognition disorders[MeSH:noexp] OR neurobehavioral manifestations[MeSH:noexp] OR confusion[MeSH:noexp] OR memory disorders[MeSH:noexp] OR mental processes[MeSH:noexp] OR cognition[MeSH:noexp] OR comprehension[MeSH:noexp] OR learning[MeSH:noexp] OR generalization psychology[MeSH:noexp] OR transfer psychology[MeSH:noexp] OR perception[MeSH:noexp] OR thinking[MeSH:noexp] OR concept formation[MeSH:noexp] OR judgment[MeSH:noexp] OR problem solving[MeSH:noexp] OR perceptual disorders[MeSH:noexp] OR arousal[MeSH:noexp] OR orientation[MeSH:noexp] OR attention[MeSH:noexp] OR awareness[MeSH:noexp] OR memory[MeSH:noexp] OR recognition psychology[MeSH:noexp] OR algorithms[MeSH:noexp] OR impulsive behavior[MeSH:noexp] OR neuropsychological tests[MeSH:noexp] OR metacognition[MeSH:noexp]) OR (agnosia[Title/Abstract] OR amnesia[Title/Abstract] OR confusion[Title/Abstract] OR inattention[Title/Abstract]) OR ((cognit\*[Title/Abstract] OR arous\*[Title/Abstract] OR orientat\*[Title/Abstract] OR attention\*[Title/Abstract] OR concentrat\*[Title/Abstract] OR memor\*[Title/Abstract] OR recall[Title/Abstract] OR percept\*[Title/Abstract] OR think\*[Title/Abstract] OR sequenc\*[Title/Abstract] OR algorithm\*[Title/Abstract] OR judgement\*[Title/Abstract] OR judgment\*[Title/Abstract] OR awareness[Title/Abstract] OR problem solving[Title/Abstract] OR generalisation[Title/Abstract] OR generalization[Title/Abstract] OR transfer[Title/Abstract] OR comprehension[Title/Abstract] OR learning[Title/Abstract]) AND (disorder\*[Title/Abstract] OR declin\*[Title/Abstract] OR dysfunct\*[Title/Abstract] OR impair\*[Title/Abstract] OR deficit\*[Title/Abstract] OR abilit\*[Title/Abstract] OR problem\*[Title/Abstract])) OR (concept[Title/Abstract] AND formation[Title/Abstract]) OR (dysexecutive syndrome\*[Title/Abstract] OR dysexecutive function[Title/Abstract] OR mental process\*[Title/Abstract] OR impulsive behavior\*[Title/Abstract] OR impulsive behaviour\*[Title/Abstract] OR executive function[Title/Abstract] OR executive dysfunction[Title/Abstract] OR front striatal dysfunction[Title/Abstract]))) AND ((Rehabilitation[MeSH] OR games, experimental[MeSH] OR Computer-Assisted Instruction[MeSH]) OR (cognitive intervention\*[Title/Abstract] OR cognitive training[Title/Abstract] OR cognitive rehabilitation[Title/Abstract] OR cognitive

stimulation[Title/Abstract] OR psychological intervention\*[Title/Abstract] OR psychological rehabilitation[Title/Abstract] OR psychological training[Title/Abstract] OR cognitive program\*[Title/Abstract] OR psychological program\*[Title/Abstract] OR training program\*[Title/Abstract] OR neuropsychologic\*[Title/Abstract] OR computer\* AND training[Title/Abstract] OR video game\*[Title/Abstract] OR computer game\*[Title/Abstract] OR brain training[Title/Abstract] OR memory training[Title/Abstract] OR mnemonic training[Title/Abstract] OR cognitive remediation[Title/Abstract] OR cognitive enhancement[Title/Abstract] OR neurological outcome measure\*[Title/Abstract] OR Goal Attainment Scaling[Title/Abstract] OR mental practice[Title/Abstract] OR mental imagery[Title/Abstract] OR visual scanning training[Title/Abstract] OR compensat\*[Title/Abstract]))))

NOT

(((((stroke[MeSH] OR intracranial embolism and thrombosis[MeSH] OR intracranial arteriosclerosis[MeSH] OR dementia, vascular[MeSH] OR cerebrovascular disorders[MeSH:noexp] OR basal ganglia cerebrovascular disease[MeSH] OR brain ischemia[MeSH] OR carotid artery diseases[MeSH] OR cerebral small vessel disease[MeSH] OR brain injuries[MeSH]) OR (stroke[Title/Abstract] OR cerebrovascular[Title/Abstract] OR post stroke[Title/Abstract] OR poststroke[Title/Abstract] OR cerebral ischaemia\*[Title/Abstract] OR cerebral ischemia\*[Title/Abstract] OR brain ischaemia\*[Title/Abstract] OR brain ischemia\*[Title/Abstract] OR ischemic attack\*[Title/Abstract] OR ischaemic attack\*[Title/Abstract] OR ischemic event\*[Title/Abstract] OR ischaemic event\*[Title/Abstract] OR cerebral infarct\*[Title/Abstract] OR brain infarct\*[Title/Abstract] OR cva[Title/Abstract] OR cerebral vascular[Title/Abstract] OR brain injur\*[Title/Abstract]) OR ((cerebral[Title/Abstract] OR cerebellar[Title/Abstract] OR brain\*[Title/Abstract] OR vertebrobasilar[Title/Abstract]) AND (infarct\*[Title/Abstract] OR ischemi\*[Title/Abstract] OR ischaemi\*[Title/Abstract] OR thrombo\*[Title/Abstract] OR emboli\*[Title/Abstract] OR apoplexy[Title/Abstract]))) AND ((cognition disorders[MeSH:noexp] OR neurobehavioral manifestations[MeSH:noexp] OR confusion[MeSH:noexp] OR memory disorders[MeSH:noexp] OR mental processes[MeSH:noexp] OR cognition[MeSH:noexp] OR comprehension[MeSH:noexp] OR learning[MeSH:noexp] OR generalization psychology[MeSH:noexp] OR transfer psychology[MeSH:noexp] OR perception[MeSH:noexp] OR thinking[MeSH:noexp] OR concept formation[MeSH:noexp] OR judgment[MeSH:noexp] OR problem solving[MeSH:noexp] OR perceptual disorders[MeSH:noexp] OR arousal[MeSH:noexp] OR orientation[MeSH:noexp] OR attention[MeSH:noexp] OR awareness[MeSH:noexp] OR memory[MeSH:noexp] OR recognition psychology[MeSH:noexp] OR algorithms[MeSH:noexp] OR impulsive behavior[MeSH:noexp] OR neuropsychological tests[MeSH:noexp] OR metacognition[MeSH:noexp]) OR (agnosia[Title/Abstract] OR amnesia[Title/Abstract] OR confusion[Title/Abstract] OR inattention[Title/Abstract]) OR ((cognit\*[Title/Abstract] OR arous\*[Title/Abstract] OR orientat\*[Title/Abstract] OR attention\*[Title/Abstract] OR concentrat\*[Title/Abstract] OR memor\*[Title/Abstract] OR recall[Title/Abstract] OR percept\*[Title/Abstract] OR think\*[Title/Abstract] OR sequenc\*[Title/Abstract] OR algorithm\*[Title/Abstract] OR judgement\*[Title/Abstract] OR judgment\*[Title/Abstract] OR awareness[Title/Abstract] OR problem solving[Title/Abstract] OR generalisation[Title/Abstract] OR

generalization[Title/Abstract] OR transfer[Title/Abstract] OR comprehension[Title/Abstract] OR learning[Title/Abstract]) AND (disorder\*[Title/Abstract] OR declin\*[Title/Abstract] OR dysfunct\*[Title/Abstract] OR impair\*[Title/Abstract] OR deficit\*[Title/Abstract] OR abilit\*[Title/Abstract] OR problem\*[Title/Abstract])) OR (concept[Title/Abstract] AND formation[Title/Abstract]) OR (dysexecutive syndrome\*[Title/Abstract] OR dysexecutive function[Title/Abstract] OR mental process\*[Title/Abstract] OR impulsive behavior\*[Title/Abstract] OR impulsive behaviour\*[Title/Abstract] OR executive function[Title/Abstract] OR executive dysfunction[Title/Abstract] OR front striatal dysfunction[Title/Abstract])) AND ((Rehabilitation[MeSH] OR games, experimental[MeSH] OR Computer-Assisted Instruction[MeSH]) OR (cognitive intervention\*[Title/Abstract] OR cognitive training[Title/Abstract] OR cognitive rehabilitation[Title/Abstract] OR cognitive stimulation[Title/Abstract] OR psychological intervention\*[Title/Abstract] OR psychological rehabilitation[Title/Abstract] OR psychological training[Title/Abstract] OR cognitive program\*[Title/Abstract] OR psychological program\*[Title/Abstract] OR training program\*[Title/Abstract] OR neuropsychologic\*[Title/Abstract] OR computer\* AND training[Title/Abstract] OR video game\*[Title/Abstract] OR computer game\*[Title/Abstract] OR brain training[Title/Abstract] OR memory training[Title/Abstract] OR mnemonic training[Title/Abstract] OR cognitive remediation[Title/Abstract] OR cognitive enhancement[Title/Abstract] OR neurological outcome measure\*[Title/Abstract] OR Goal Attainment Scaling[Title/Abstract] OR mental practice[Title/Abstract] OR mental imagery[Title/Abstract] OR visual scanning training[Title/Abstract] OR compensat\*[Title/Abstract])) AND (randomized controlled trial[Publication Type] OR controlled clinical trial[Publication Type] OR randomized[Title/Abstract] OR randomised[Title/Abstract] OR placebo[Title/Abstract] OR clinical trials as topic[MeSH:noexp] OR randomly[Title/Abstract] OR trial[Title]))