SUPPLEMENTAL DIGITALCONTENT 4: DESCRIPTION OF DUAL-TASK TRAINING PROGRAM

The following are examples of motor-motor and motor-cognitive pairings and progressions of pairings used in the Phase B. These pairings are by no means absolute; gross and fine motor tasks were paired with various cognitive tasks throughout Phase B to create unique pairings as appropriate.

Examples of Paired Motor-Motor Tasks

| _ | Primary Motor Task | Secondary Motor Task | Secondary Cognitive Task |
|---|---------------------------------------|----------------------------|--------------------------|
| 1 | Tandem Walk | | X |
| | Progression: Heel & Toe Walk | | |
| 2 | Figure of 8 | Carrying bags of different | X |
| | Backward Walk | sizes (groceries) | |
| 3 | Forward Walk | Carrying objects | X |
| | (smooth/uneven surfaces) | (laundry basket, plate) | |
| | Progression: against resistance, fast | | |
| | walking | | |
| 4 | Balance on a Foam Surface | Folding laundry | X |
| | (static and dynamic) | | |
| 5 | Cone Walking | Holding hand weights | X |
| | (single leg balance) | | |
| 6 | Stair Climbing | | X |
| | Progression: Step-ups | | |
| 7 | Stepping to Targets | Object toss | X |
| | Obstacles (weaving, stepping over) | | |
| | Progression: Side-stepping, side- | | |
| | step against resistance, object pick- | | |
| | up (stoop & squat) | | |

Examples of Paired Motor-Cognitive Tasks

| | Primary Motor Task | Secondary Motor Task | Secondary Cognitive Task |
|---|------------------------------------|----------------------|-------------------------------|
| 1 | Tandem Walk | X | Addition |
| | Heel & Toe Walk | | |
| 2 | Figure of 8 | X | Subtraction |
| | Backward Walk | | |
| 3 | Forward Walk | X | Spelling |
| | (smooth/uneven surfaces) | | |
| | Progression: against resistance, | | |
| | fast walking | | |
| 4 | Balance on a Foam Surface | X | Puzzle or manual sorting/ |
| | (static and dynamic) | | categorization of items |
| 5 | Cone Walking | X | Remembering lists |
| | (single leg balance) | | |
| 6 | Stair Climbing | X | Synthesis of lists/categories |
| | Progression: Step-ups | | |
| 7 | Stepping to Targets | X | Match footsteps to auditory |
| | Obstacles (weaving, stepping over) | | or visual cue |
| | Progression: Side-stepping, side- | | |
| | step against resistance, object | | |
| | pick-up (stoop & squat) | | |