1. 根據下文，請用中文回答此研究的 primary outcome & secondary outcomes 是甚麼？並請描述這些 outcomes 是如何測量出來的及其標準。(15%)

Outcome measures: Sitting ability was the primary outcome measure. Sitting ability was measured as the maximum reach distance, using the intact arm, in three directions: forward, ipislateral (45 degrees from the intact acromion away from the intact side), and across (45 degrees from the intact acromion across the body toward affected side). The procedure for measurement was similar to the Functional Reach Test in standing (Duncan et al 1990) and was the same as that used previously by Dean and Shepherd (1997). Participants had one practice trial followed by three actual trials in each direction. The best attempt for each direction was measured as the horizontal distance from the tip of the intact shoulder when the trunk was erect to the point reached on the table, and recorded to the nearest 0.01 m using a steel pole with 0.001 m increments. Previous research has indicated that the affected lower limb makes a significant contribution to support, balance, and propulsion during reaches in the forward and across directions, and very little contribution when reaching in the ipsilateral direction (Dean et al 1998, Dean et al 1999b). The primary outcome measure, sitting ability, therefore, was defined as the average maximum reach distance from the forward and across reaches.

A standardized 'reach to grasp and drink a glass of water' task was used to derive secondary outcome measures reflecting quality of sitting and was the same as that previously used by Dean and Shepherd (1997). Participants were instructed to use the intact arm to pick up a glass and drink from it. The reach distance was set at 140% of arm's length and this task was evaluated in the three directions. The water level was kept constant at 0.015 m from the top of the glass. The instructions given to each participant were 'Relax, ready, reach.' Participants had one practice trial followed by four trials in each direction. Pressure sensitive switches, portable force plates and laptop computer equipment were used to allow the collection of time and force data during the reach in the clinic. The secondary outcome measures that reflected sitting quality were the average reach movement time and the average peak vertical force through the affected foot during reaching expressed as a percentage of body weight obtained for reaches in the forward and across directions.

Carry over to mobility (standing up and walking) were also secondary outcomes. Standing up was measured as the peak vertical force through the affected foot during standing up (after thighs off) from a seat standardized to a height of 115% of lower leg length. The average peak vertical force, expressed as a percentage of body weight, of the four trials was calculated. Walking was measured as the speed in m/s during the 10 m Walk Test. The instructions given to each participant were 'Walk at a comfortable speed'. The time taken to walk over the middle 10 m of a 14 m walkway

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on a wooden floor in bare feet was measured with a stopwatch. The average of two trials was used to calculate walking speed.

2. 請將下面文章翻譯成中文。(10%)

This systematic review explored the impact of fall prevention programs and home modifications on falls and the performance of community-dwelling older adults. Thirty-three articles were analyzed and synthesized. The strongest results were found for multifactorial programs that included home evaluations and home modifications, physical activity or exercise, education, vision and medication checks, or assistive technology to prevent falls. Positive outcomes included a decreased rate of functional decline, a decrease in fear of falling, and an increase in physical factors such as balance and strength. The strength of the evidence for physical activity and home modification programs provided individually was moderate. Implications for practice, education, and research are also discussed.

3. (1) 請依下列摘要, 列出合適的英文題目 (5%)
(2) 請以中文寫出本文之主要目的與重要性 (5%)
(3) 請以中文寫出本文之結果 (5%)

ABSTRACT. Client-centered practice requires therapists to actively seek the perspectives of children and families. Several assessment tools are available to facilitate this process. However, when evaluating motor skill performance, therapists typically concentrate on performance-based assessment. To improve understanding of the information provided by the different approaches, the study investigated correlations between performance-based, child-report, and parent-report measures of children's motor skill performance. A sample of convenience of 38 children 8–12 years of age with no history of motor or intellectual impairments and their parents was recruited from Victoria, Australia. Scores for the Bruininks–Oseretsky Test of Motor Proficiency (performance-based, administered by a therapist), Physical Self-Description Questionnaire (child report), and Movement Assessment Battery for Children Checklist (parent report) were analyzed using Spearman's rho correlation. Several significant moderate-to-large correlations were found between scores for parent-report and scores for performance-based assessments, while few significant correlations were found between scores for child report and scores for the other two measures. The results suggest that children offer a unique perspective which should

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be integrated with other sources of information to gain a more holistic perspective of their motor skill performance.

4. 請閱讀下述摘要後，用中文簡答下列問題(除了某些特殊評估工具的專有名詞可以用英文)。
   (1) 請簡述此研究的基本設計(包括收案以及自變項) (5%)
   (2) 請簡述此研究用何種方式評估療效(請包含評估的內容) (5%)
   (3) 請簡述研究的結論 (5%)

Objective: To evaluate the effects of individual or group mirror therapy on sensorimotor function, activities of daily living, quality of life and visuospatial neglect in patients with a severe arm paresis after stroke. Design: Randomized controlled trial. Setting:Inpatient rehabilitation centre. Subject: Sixty patients with a severe paresis of the arm within three months after stroke. Interventions: Three groups: (1) individual mirror therapy, (2) group mirror therapy and (3) control intervention with restricted view on the affected arm. Main measures: Motor function on impairment (Fugl-Meyer Test) and activity level (Action Research Arm Test), independence in activities of daily living (Barthel Index), quality of life (Stroke Impact Scale) and visuospatial neglect (Star Cancellation Test). Results: After five weeks, no significant group differences for motor function were found ($P > 0.05$). Pre-post differences for the Action Research Arm Test and Fugl-Meyer Test: individual mirror therapy: 3.4 (7.1) and 3.2 (3.8), group mirror therapy: 1.1 (3.1) and 5.1 (10.0) and control therapy: 2.8 (6.7) and 5.2 (8.7). However, a significant effect on visuospatial neglect for patients in the individual mirror therapy compared to control group could be shown ($P < 0.01$). Furthermore, it was possible to integrate a mirror therapy group intervention for severely affected patients after stroke. Conclusion: This study showed no effect on sensorimotor function of the arm, activities of daily living and quality of life of mirror therapy compared to a control intervention after stroke. However, a positive effect on visuospatial neglect was indicated.

5. 請用中文翻譯下段文章大意。(15%)

In this study, we found that the degree of agreement, measured by the kappa statistic ($k = 0.43$), between the BOTMP and the MABC in identifying the DCD status was lower than the conventional acceptable level (0.75). We speculated that the relatively low consistency may be due, in part, to the differences of test design with resulting

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differences in attention and motor demands involved in the two motor tests as described by other investigators (Crawford et al., 2001; Dewey & Wilson, 2001). The BOTMP has more verbal promptings and chances for correction, whereas the MABC is administered with more detailed instructions and strict scoring criteria without prompting during the testing (Crawford et al., 2001; Yoon, Scott, Hill, Levitt, & Lambert, 2006). Furthermore, neither test provides a complete profile of motor performance. The BOTMP measures only the ability to perform a given activity rather than impairment with respect to quality of movement, while the MABC is designed to provide the general index of motor impairment (Missiuna, Rivard, & Bartlett, 2006; Wilson, 2005). The level of agreement of the two motor tests in this study was similar to that noted by Crawford et al. (2001) (kappa k = 0.42 for the degree of agreement between the BOTMP Full Battery composite and the MABC) but lower than that of Dewey and Wilson (2001) (kappa k = 0.62 between the BOTMP and the MABC/TOMI-H). The differences in these findings also might reflect the variation in participant populations. None of the participants in this study and Crawford et al.'s (2001) study were referred due to motor or coordination problems, whereas 76 out of 157 children with DCD in Dewey and Wilson's (2001) study had been referred to occupational therapy for their motor difficulties.

6. 請閱讀以下英文段落，並以中文把整段簡明敘述之。(15%)

In the past several decades, as the profession has gained greater sophistication in the knowledge of instrument development and testing, two poles have emerged. One pole has promoted the idea that function should be defined and measured by a client's performance of life roles and the meaningful activities that are part of those roles (e.g., being able to resume the role of artist after stroke). Assessment is focused on a client's participation restriction, occupational balance, and life-role configuration. This pole has frequently been referred to as a *top-down approach* (Meriano & Latella, 2008, p. 132).

A second pole has argued that function should be defined and measured by the specific, discrete body impairments that affect larger daily life activities (e.g., being able to regain fine motor movements and sensory awareness in the right hand after stroke to manipulate paintbrushes). Assessment is focused on body impairment–level pathology. This pole is frequently referred to as a *bottom-up approach* (Meriano & Latella, 2008, p. 132).

Compounding this divide is the clinical setting's preference for home-grown assessments, which are neither reliable nor valid, over standardized instruments (Radomski & Trombly Latham, 2008). From the clinical perspective, many

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standardized instruments seem time and cost inefficient and can be divorced from the relevance of problems encountered by clients and their caregivers.

At this critical juncture in the profession's history, when our foremost priority is to demonstrate the effectiveness of our services to remain approved providers, several matters have become evident:

- We have wasted time and resources arguing over personal agendas that have split the profession.
- Function must be defined and measured by discrete body impairments, activity limitations, and participation restrictions in accordance with the needs of the client and clinical setting and with the client's stage of rehabilitation and readiness to address specific types of problems. Although the segregation of evaluation into top-down and bottom-up approaches has provided insight on the variety of occupational therapy clinical reasoning styles, it has not served the profession to promote one over the other when both are necessary.
- To reimburse services, insurers want evidence that intervention facilitates progress in the performance of functional daily life activities that are meaningful to society. Occupational therapy assessments that focus on occupation-based terminology that is not readily understood by insurers and the larger society may not adequately demonstrate the profession's value.
- Client progress must be demonstrated through objective, measurable outcomes assessed by reliable and valid instruments. The continued reliance on unstandardized instruments to measure client outcomes does two things: (1) It reduces the credence and legitimacy of our practice in the eyes of insurers and colleagues, and (2) it fails to contribute to a database of client outcomes that can be used to support the effectiveness and cost- and time-efficiency of occupational therapy services.

7. (1)依據下文，試用中文解釋 health literacy (5 %)
(2)請用中文說明 health literacy 於復健專業之重要性及目前的挑戰 (10 %)

OBJECTIVE: To discuss the importance of integrating health literacy into rehabilitation practice.
BACKGROUND: The effectiveness of rehabilitation interventions and clients' long-term health might depend on various factors, including health literacy. Health literacy is defined as the ability to access, understand, evaluate and communicate information as a way to promote, maintain and improve health in a variety of settings over the life-course. Rehabilitation professionals are often uniformed about and neglect health literacy in their interventions.

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METHOD: The scientific and grey literature on health and, more specifically, rehabilitation and health promotion was reviewed. The MEDLINE, OTDBASE, CINAHL, AMED and MANTIS databases were searched by combining the keyword (1) 'health literacy' with the keywords (2) 'rehabilitation', 'physical therapy', 'occupational therapy' or 'health promotion'.

RESULTS: Health literacy is one of the foundations of individual health and might have an impact on interventions, the individual and society. All papers addressing both health literacy and rehabilitation (n = 10) specifically mentioned that rehabilitation professionals need to consider their clients' health literacy. Rehabilitation is particularly linked to health literacy because both stress the importance of (1) capacities, functioning, participation and empowerment of clients; (2) holistic approach; (3) client-centred practice; (4) teaching of information and methods; and (5) access to services and equity issues.

CONCLUSIONS: Based on these results, we think it is important that rehabilitation professionals be aware of the importance of health literacy and intervene to improve it. The challenge is now to better understand how health literacy influences the effectiveness of rehabilitation and health outcomes.

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