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One of the main concepts of Conductive Education is the active participation of individuals in learning. Individuals are not solely recipients of treatment but they are encouraged to try solving problems and gradually develop a self-reliant personality. Self-regulation (SR) employs similar concepts. It is a cognitive strategy that an individual can apply to learn a behavior more effectively by increasing self-consciousness through independent and reflective learning.

Question
Can SR strategies be employed to promote the in-hand manipulation skills for students with cerebral palsy (CP)?

Objectives
This study investigated the effectiveness of the use of SR strategies in promoting the in-hand manipulation skills for four students with CP.

Methods
Four students with CP, age 7 to 19, were recruited in a 12-session SR training programme to improve their in-hand manipulation skills, including translation, shifting and rotation. Their performance during training was video-taped. The videotape, inducing questions and verbal prompting were used for facilitating students' self evaluation, so as to promote students' problem identification and self-generation of solutions to better their performance. More importantly, it aimed to help them generalize the learnt strategies into daily life. Standardized assessments including Subtests 1 and 3 of the Bruininks-Oseretsky Test of Motor Proficiency (2nd ed.), Nine Hole Peg Test and the Purdue Pegboard Dexterity Test were administered before, during and after intervention program. The time required to complete the specific manipulation tasks including translation, shifting, and rotation as offered in the SR program were also recorded at the same time interval.

Results
All students improved their in-hand manipulation skills. Comparing pre- and post- intervention performance in the task-specific in-hand manipulation skills, the students took 5.15% to 70.20% less time to complete the tasks. Three of the four students also showed improvement of 2.1% to 71.4% in the various items of the standardized assessments after the intervention.

Conclusion
SR is effective in improving in-hand manipulation skills in students with CP. Most importantly, it reconciles well with the CE system as it promotes active participation, self-evaluation and problem solving. Contributing factors of good outcomes include intellectual abilities, expressive language ability and the types of CP. Other factors including strategies employed and motivation also affect the intervention outcomes.

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