Title

Providing Stroke Sequence of Chinese Characters Facilitates HandwritingLearning in Children with Developmental Coordination Disorder

Journal

Proceedings of the Annual Meeting of the Cognitive Science Society, 41(0)

Authors

Cherng, Rong-Ju
Liao, Yi-Wen
Chen, Jenn-Yeu

Publication Date

2019

Peer reviewed

Providing Stroke Sequence of Chinese Characters Facilitates Handwriting Learning in Children with Developmental Coordination Disorder

Rong-Ju Cherng
National Cheng Kung University, Tainan, Taiwan

Yi-Wen Liao
National Cheng Kung University, Tainan, Taiwan

Jenn-Yeu Chen
National Taiwan Normal University, Taipei, Taiwan

Abstract

The study investigated whether providing instruction on the stroke sequence would facilitate the learning of writing Chinese characters in children with developmental coordination disorder (DCD) and typically developing (TD) children. The children wrote six characters, three with stroke sequence instruction and three without. Each character was repeated 40 times. Trajectory, speed, on-paper time, in-air time, and number of changes in velocity direction per stroke (NCV) were measured with Wacom Intuos 5 digitizing writing tablet. The results showed a significant group effect, time (practice) effect and instruction effect but no interaction effects. Both groups of children showed a similar trend of improvement over practice with decreasing trajectory, increasing speed, decreasing on-paper time and in-air time. With stroke sequence instruction, both groups of children learned at a similar rate on most of the writing parameters. Instruction on stroke sequences helped the character writing of both the DCD children and the TD children.