

Hosseini, M. (2000). Thesis Research. **The effectiveness of occupational therapy intervention to improve the handwriting performance of individuals with sensory motor problems who demonstrate severe handwriting difficulties.** Queen's University.

An experimental multiple base-line single subject design consisting of 5 subjects was used. The design involved the systematic collection of repeated measurements of a behavioural response (writing) over time, usually at frequent and regular intervals. In a multiple A-B design there were two phases: baseline phase (A) prior to treatment and intervention phase B during treatment. The same measurements were gathered at regular intervals over both phases. Sensory Motor Performance components of handwriting and ergonomic factors were assessed. A battery of OT non-standardized and standardized tools, including sub-sections of SIPT were used to assess underlying factors leading to writing difficulties. Children's Handwriting Evaluation Scale was used to assess children's handwriting performance. Standardized tests utilized had high reliability and validity ratios. The treatment intervention was over 8 treatment sessions once every two weeks. OT follow up programs which were carried out at children's homes and schools formed an important part of the intervention. Systematic monitoring programs were in place to ensure therapist's adherence to time frames and treatment programs and to determine whether or not the subjects were following the OT follow up programs. The intervention was based on sensory integration, sensory motor, cognitive and behavioural approaches.

To determine the effectiveness of OT intervention, visual, statistical, and clinical data analysis were used. A substantial rate for inter-rater reliability was achieved. Graphic representations of children's quality and speed of writing were provided to display children's performance during baseline and intervention phases. The results of the research showed that occupational therapy intervention is effective to improve the quality of handwriting performance in children with handwriting difficulties.

Support for findings, discussion on type of intervention, methodology, clinical implications, study limitations and implications for future research were discussed.