Abstract

**Study Background:** Occupational therapists working with children are concerned about their capacity to facilitate participation in daily activities such as self-care, play, and school related tasks effectively. Visual perception, visual motor integration and handwriting are considered to be the important factors that contribute to academic performance from an occupational therapy perspective. The current longitudinal study was conducted to determine the relationship of these factors with academic performance in elementary school children.

**Method:** The relationship of visual perception, visual motor integration and handwriting with academic performance from second through fourth standard on 208 children from 12 elementary schools in Udupi district was studied. The screening tools and the administration of primary measures were done for three consecutive years. The academic performance was accessed from school marks records.

**Results:** One-way ANOVA test result showed a significant difference in mean academic performance between low and high visual perception group in second standard (p=0.006); between low and high visual motor integration group in second (p=0.005) and third standard (p=0.024); poor and good legible handwriting in second (p<0.001), third (p<0.001) and fourth (p=0.025) standard. Multiple linear regression showed that 43%, 26% and 17% of variance in the academic performance could be predicted in second, third and fourth standard consecutively. Repeated measures of ANOVA test revealed that, visual perception changed only from second to third standard (p<0.001), no change in visual motor integration occurred from second through fourth standard, and handwriting legibility increased as children moved from second to third (p<0.001) and third to fourth standard (p=0.032).
Conclusion: Visual perception, visual motor integration, and handwriting may be important factors that influence the academic performance in early elementary school children. Including these factors in occupational therapy evaluation and intervention when children encounter problems in academics may be a useful strategy.

Keywords: Visual Perception, Visual Motor Integration, Handwriting, Academic Performance, Elementary School Children, Occupational Therapy