

The role of visual attention in reading and mathematics among first grade children

Dor Bar Sasbon, M.A. student. Supervisor: Dr. Shelley Shaul

Research topic: This investigation focuses on the role of visual attention and its contribution to early reading abilities and mathematical skills among children in 1st and 2nd grade. The specific research questions are:

- 1) What is the role of visual attention in early reading abilities among children in 1st and 2nd grade? Do children with different visual attention profiles show distinct patterns of performance in their reading abilities such as accuracy and fluency?
- 2) What is the role of visual attention in mathematical skills among children in 1st and 2nd grade? Do children with different visual attention profiles show distinct patterns of performance in their mathematical abilities such as calculation time and accuracy as well as number line knowledge and magnitude comparison?

Why is my study unique? Very few studies have examined the relationship between visual attention and mathematical skills. Furthermore, no study has yet examined the association between visual attention and early reading and mathematical skills in the Hebrew language.

Planned analyses: In addition to standard correlational and regression analyses, I will classify the participants into profiles according to their visual attention level and then use ANOVA to test for differences in performance of the various reading and mathematical skills and subskills.

Relevance for educational practice: The present study aims to shed light on the influence of visual attention on reading and mathematical skills, in order to expand the theoretical and practical knowledge of reading and math acquisition among Hebrew-speaking children. It will also help identify children at risk for difficulties in acquiring these skills.