

The impact of the 'Attentive kindergarten' program on preschoolers cognitive functioning, school readiness, and the interactions with their teachers



Post-doc Fellow: Dr. Inbar Lucia Trinczer
PI: Prof. Dorit Aram

Early Childhood Lab, the Constantiner School of Education, Tel-Aviv University

BACKGROUND

In recent years, awareness of the important role played by cognitive and emotional factors in the acquisition of academic and social skills in preschool and early school years has increased¹. In addition, there is extensive research evidence that basic cognitive functions such as attentiveness, working memory, and cognitive control can be trained especially at a young age. Attention is a central and vital component of the cognitive system. Therefore, attention difficulties, which stem from various causes, have wide implications that may have a negative impact on scholastic, social and emotional functioning of children throughout development and self-realization in the future.

THE 'ATTENTIVE KINDERGARTEN' PROGRAM

The 'Attentive Kindergarten' program was developed in the Attention Lab of Tel-Aviv University, by Dr. Inbar Lucia Trinczer and Tom Maayan, under the supervision of Prof. Lilach Shalev Mevorach.

It is an innovative intervention program comprised of theory-driven structured activities within the kindergarten teachers' toolbox, based on familiar games with attractive images, that allow young children to feel secured and relate to them.

It includes small-group sessions held by the teachers as part of the kindergarten routine, twice a week, for nine weeks.

The different activities of the program address:

- Sustained attention;
- Selective-spatial attention;
- Response inhibition;
- Self-confidence and self-efficacy.

TRAINING SUSTAINED ATTENTION:



TRAINING SELECTIVE-SPATIAL ATTENTION:



METHOD

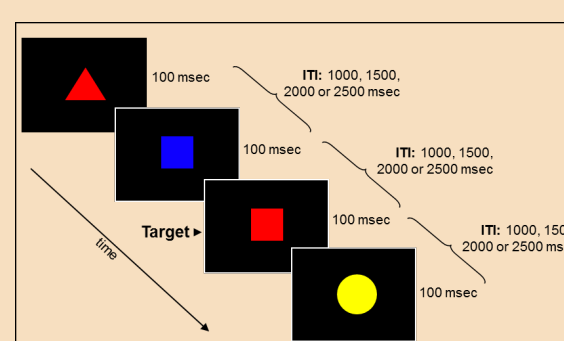
PARTICIPANTS:

- 13 kindergarten teachers from the M.A. program in Early Childhood Education at Talpiot Teachers College administered the program to a small group of children in their classes (52 participants).
- The results of the pre-and post-intervention assessment were compared to the results of an active control group in each kindergarten class, that participated in small-group sessions with similar structure and different content based on the daily kindergarten routine activities (51 participants).

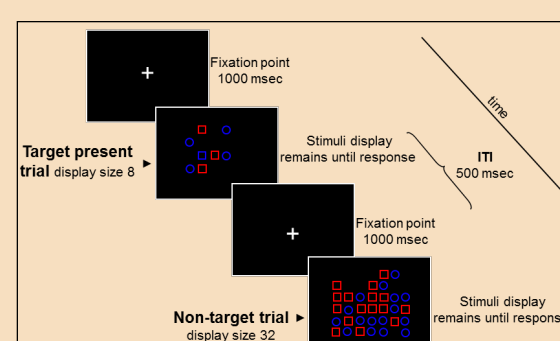
TOOLS:

- The teacher answered the STRS questionnaire (Student-Teacher Relationship Scale)⁴.
- The participants completed three visual-attention tasks⁵ to assess their attentional functions, adapted to kindergarten children:

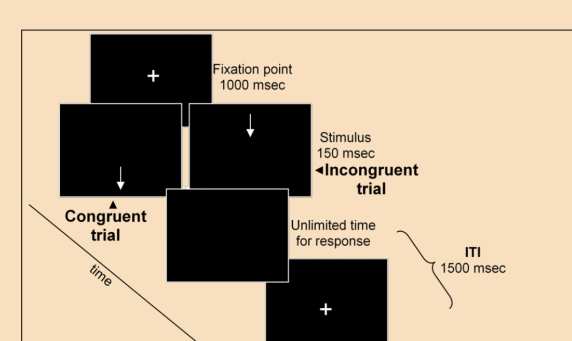
Conjunctive Continuous Performance task designed to assess: SUSTAINED ATTENTION



A Visual Search task designed to assess: SELECTIVE-SPATIAL ATTENTION



A Location-Direction Stroop-like task designed to assess: CONFLICT RESOLUTION



RESULTS

- A quantitative analysis of the attention tasks results suggests that in most of the evaluated measures, a main effect of time was found, indicating an improvement in both groups.
- A thorough examination of the items of the teachers' questionnaire found that while in the active control group no changes were found between before and after participating in the group intervention sessions, in the Attentive Kindergarten group a significant improvement was found in the following items:

- Affectionate relationship (increase)
- Communication and sharing feelings and experiences (increase)
- Anger or resistance reactions when asked to be disciplined (decrease)

CONCLUSIONS

- The improvements in the attention tasks in both groups can be attributed to natural development over time, as well as to the kindergarten teachers' mediation and the structured work in small groups, which characterized the activities in both the Attentive Kindergarten group and the active control group.
- The improvements in specific items of the Student-Teacher Relationship Scale that were unique to the Attentive Kindergarten group suggest that the changes reported by the teachers of these children can be attributed to processes that were triggered by the content of the Attentive Kindergarten intervention rather than to processes triggered by mere small group work.
- These conclusions should be further examined in a future research.

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