

Implementation of motor competence assessment outcomes into practical interventions for young children



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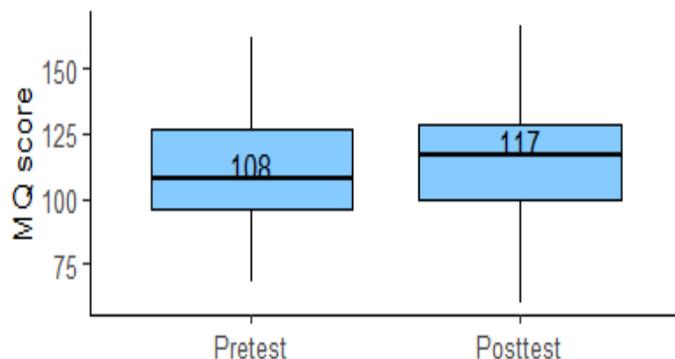
Introduction

The increasing number of young children with a low proficiency in fundamental movement skills (FMS) emphasize the need to intervene. The purpose of a large-scale Dutch study called Start(V)aardig is specifying elements that determine the effectiveness of motor interventions and translating these elements into an 18-week FMS intervention to stimulate motor competence level of young children.

Method

A pre-test is done by measuring the motor competence levels of 112 young children (65 boys; 58%) with a mean age of 5.01 years ($SD \pm 0.83$) using the Athletic Skills Track (AST-1), alias MQ Scan, and the Test of Gross Motor Development (TGMD-3). An intervention was developed based on a systematic review performed at the start of this project. A weekly FMS training (60') was provided using proven elements like deliberate practice and deliberate play, a variety of activities consequently training all different FMS (locomotor-, object control- and balance skills), and professionals trained prior, and coached during, the intervention. After the final training session, a post-test was completed by all participants.

Median MQ score pre and post intervention



Median Motor Quotient (MQ) score of the AST-1 test

Results

Preliminary results show that the intervention by means of both outcomes of the TGMD-3 and the MQ scan have been effective. In descriptive terms the TGMD-3 scores shift from 'average' to 'above average'. The scores of the MQ scan shift from 'normal motor gifted' to 'good motor gifted'.

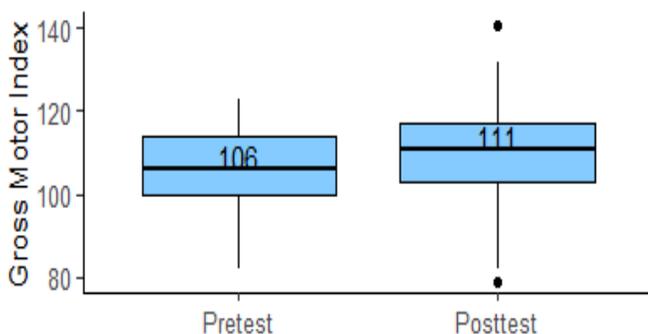
Discussion

Providing a weekly intervention containing a great variety of activities implementing all FMS seems to improve the motor competence level of young children. Combining deliberate practice and deliberate play by professionals who have been trained prior and supervised during the intervention is advisable. Sub analyses by gender and to elucidate differences between FMS (locomotion and object-control skills) have yet to be performed. Also the results of the Control Group (CG) have not been included in this presentation.

Conclusion

Proven elements which have been implemented in a 18-week FMS intervention and assessed by the TGMD-3 and MQ scan seem to be beneficial for improving motor competence levels at young age.

Median GMI pre and post intervention



Median Gross Motor Index (GMI) score of the TGMD-3