Learning a novel task during mid-childhood

No registrations found.

Ethical review	Positive opinion
Status	Recruiting
Health condition type	-
Study type	Observational non invasive

Summary

ID

NL-OMON25866

Source
Nationaal Trial Register

Health condition

Motor development, Children, Movement coordination, Learning

Sponsors and support

Primary sponsor: University Medical Center Groningen (UMCG)
Source(s) of monetary or material Support: University of Groningen, University Medical Center Groningen (UMCG)

Intervention

Outcome measures

Primary outcome

-Kinematic measures of the reaching movement of the tip of the index finger

-Joint ranges of motion

-Uncontrolled manifold analyses

Secondary outcome

-Anthropometric data (body length, arm length and weight)

-Movement-ABC test

Study description

Background summary

Mid-childhood (5- to 10-year of age) is an important developmental period in which action-perception skills acquired during infancy further refine. Previous studies have exclusively focused on movements of the index finger, analyzing performance measures such as movement time and accuracy. We aim to broaden the study of development of reaching in mid-childhood by focusing in addition to the movement of the index finger also on the movements of the joints of the arm. Because we also focus on the joint angle level, we can relate exploratory behavior in the joint angles to the performance improvements of the index finger when learning a novel task. We are therefore able to not only describe changes over learning but we are able to test an underlying process, like exploration, that could explain changes over learning as well as changes over development.

Study objective

We expect that younger children have a higher learning capacity at the end-effector level, thus they should be faster in learning to handle the visuomotor transformation task than older children.

Study design

Participants will be measured once.

Intervention

No intervention is applied.

Contacts

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Eligibility criteria

Inclusion criteria

In order to be eligible to participate in this study, a subject must meet all of the following criteria:

- Aged between 5 and 10 years

- typically developing

- Right handed

- Being able to follow the test instructions

- Parental consent

- normal or corrected to normal visual sight

Exclusion criteria

Children will be excluded when motor skill abilities, established by the Movement ABC-2 test, are below norms for age.

Study design

Design

Study type:	Observational non invasive
Intervention model:	Crossover
Allocation:	N/A: single arm study
Masking:	Open (masking not used)
Control:	N/A , unknown

Recruitment

NL

Recruitment status:	Recruiting
Start date (anticipated):	13-03-2017
Enrollment:	75
Type:	Anticipated

Ethics review

Positive opinion

Date:	03-03-2017
Application type:	First submission

Study registrations

Followed up by the following (possibly more current) registration

No registrations found.

Other (possibly less up-to-date) registrations in this register

No registrations found.

In other registers

Register	ID
NTR-new	NL6232

Register	ID
NTR-old	NTR6412
Other	: ECB_2017.02.02_1

Study results