EXPLORING SES INEQUALITIES IN MOTOR COMPETENCE DEVELOPMENT OF CHILDREN HE HAGUE

A pilot study in a primary school setting using data from different sources

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Public Health relevance

- Reduction of socioeconomic health inequalities is a major challenge in the Hague.
- Suboptimal motor competence in early childhood can contribute to an unhealthy and inactive lifestyle later in life.
- A worrisome overall decline in motor competence in primary school children is observed over the past decades.
- Merging individual research data on motor competence to open source data on socioeconomic status (SES) provides an opportunity to explore inequalities in early childhood.

Aim of this study

- To examine the development of motor competence over time in primary school children.
- 2. To study differences in this development according to the SES of the child's school district.

	MQ scores T0		MQ scores T1	N	1Q scores T2		
	Child ID number		Child ID number	Child ID number			
			Child ID number				
		School name					
		School address:					
		Zip code short		Zip code short			
		Zip code full + Street number			SES score		
		Zip	Zip code full + Street number				
		Neighbourhood code			Neighbourhood code		
					Neighbourhood name		
	istrict code		District code	District code			
DI	strict name		Municipality code		Municipality code Municipality name		
						/	

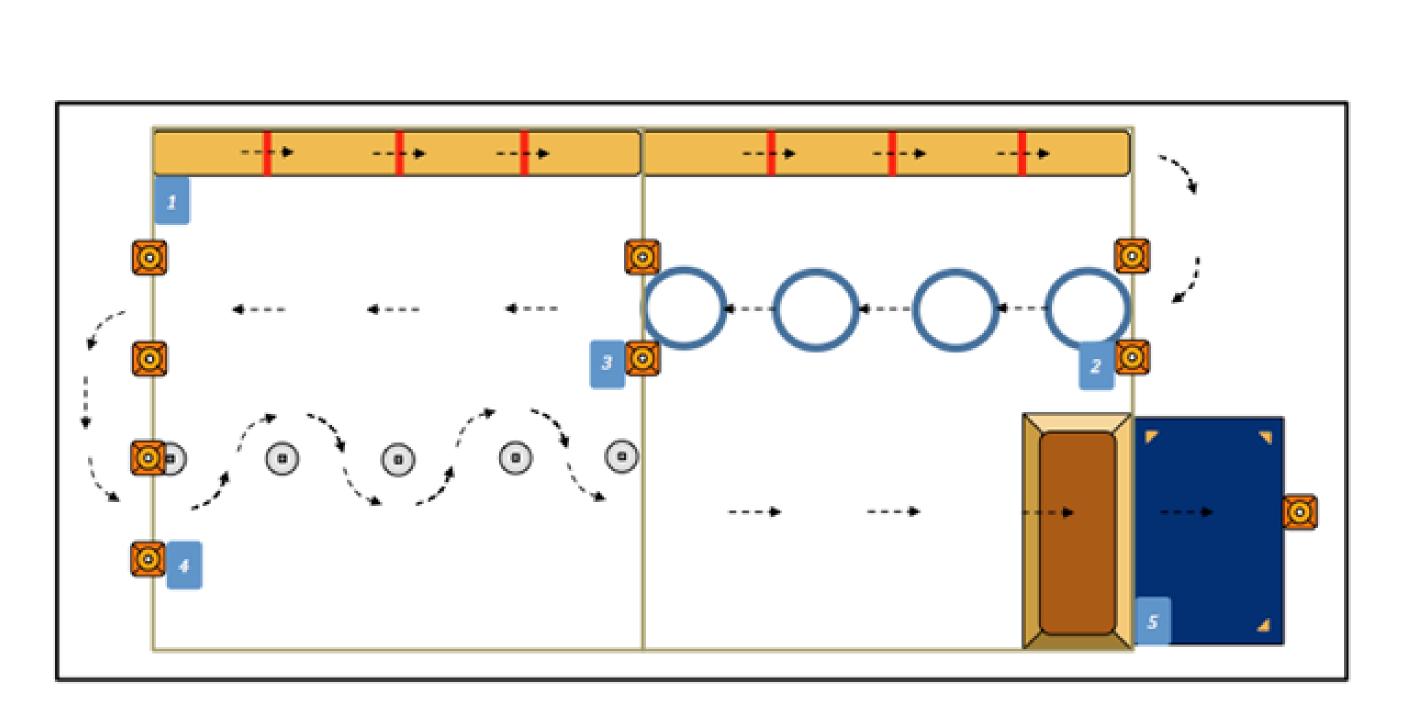
Merging data from different sources

Figure 1: Process of merging data from different sources. Blue boxes: THUAS data. Grey boxes: Open source data of Statistics Netherlands (CBS).

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Measuring motor skills

- At three consecutive years (T0,T1 & T2) the motor skills of children (aged 4-to 12-year old) were measured in 341 children in the Hague.
- Motor skills were measured using the Athletic Skills Track (AST): a reliable, valid, and feasible motor skill assessment tool for children in a physical education setting.
- The track consists of a series of 5 to 7 concatenated fundamental movement skills (e.g., rolling, creeping and walking).
- The time that children need to complete the track is converted into Motor Quotient (MQ) scores based on age- and gender-related reference values.





Preliminary results

Development of motor competence over time

All children with repeated measures in the Hague

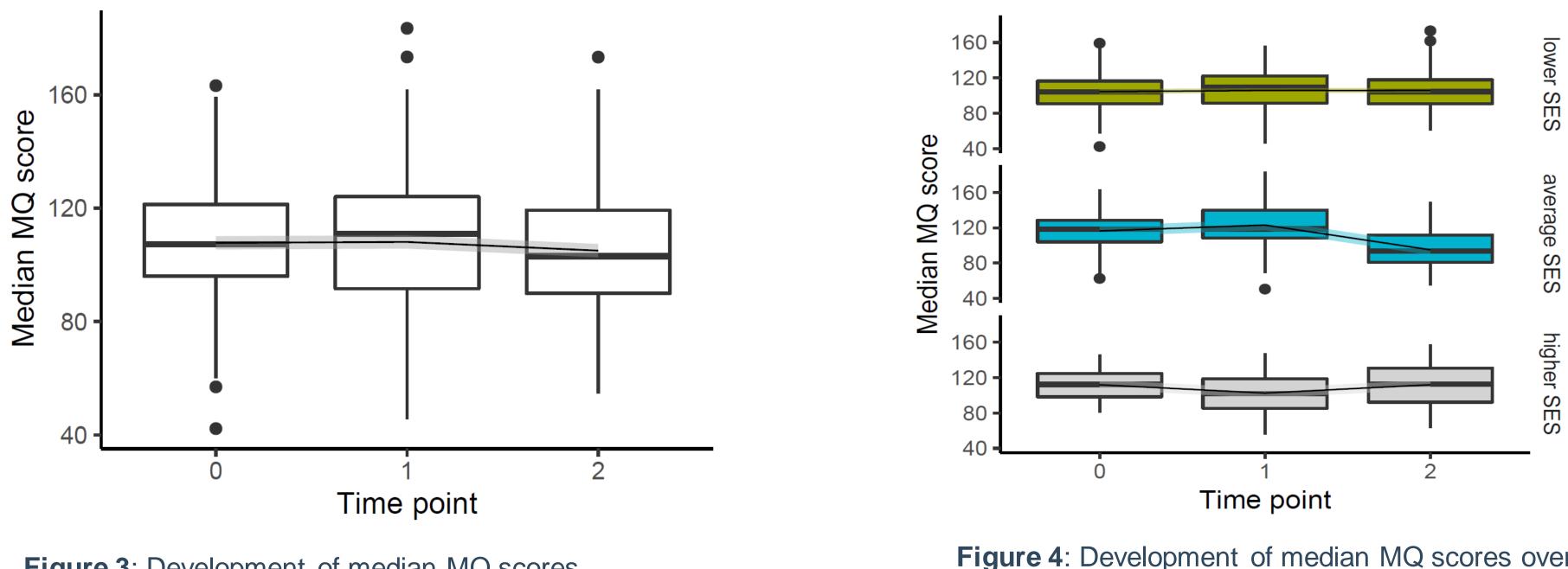


Figure 3: Development of median MQ scores over time in the Hague.



Enrich SES data of the school district with SES data of the child's individual household.

Explore other potential determinants of differences in motor competence development.

Develop interventions targeting the most discriminating determinants of a decline in motor skills of young children.

The median motor competence of primary school children showed only minor fluctuations over time.

No clear differences in this development by SES of the school district were observed.



In subgroups of the SES of their school district

Figure 4: Development of median MQ scores over time grouped by SES of the school district in the Hague. Lower, n=224; average, n=58; higher, n=59.

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Recommendations

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