

# Uitdagingen in het identificeren van cognitief talent bij jongeren met een diversiteitsachtergrond

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VCGG 2022

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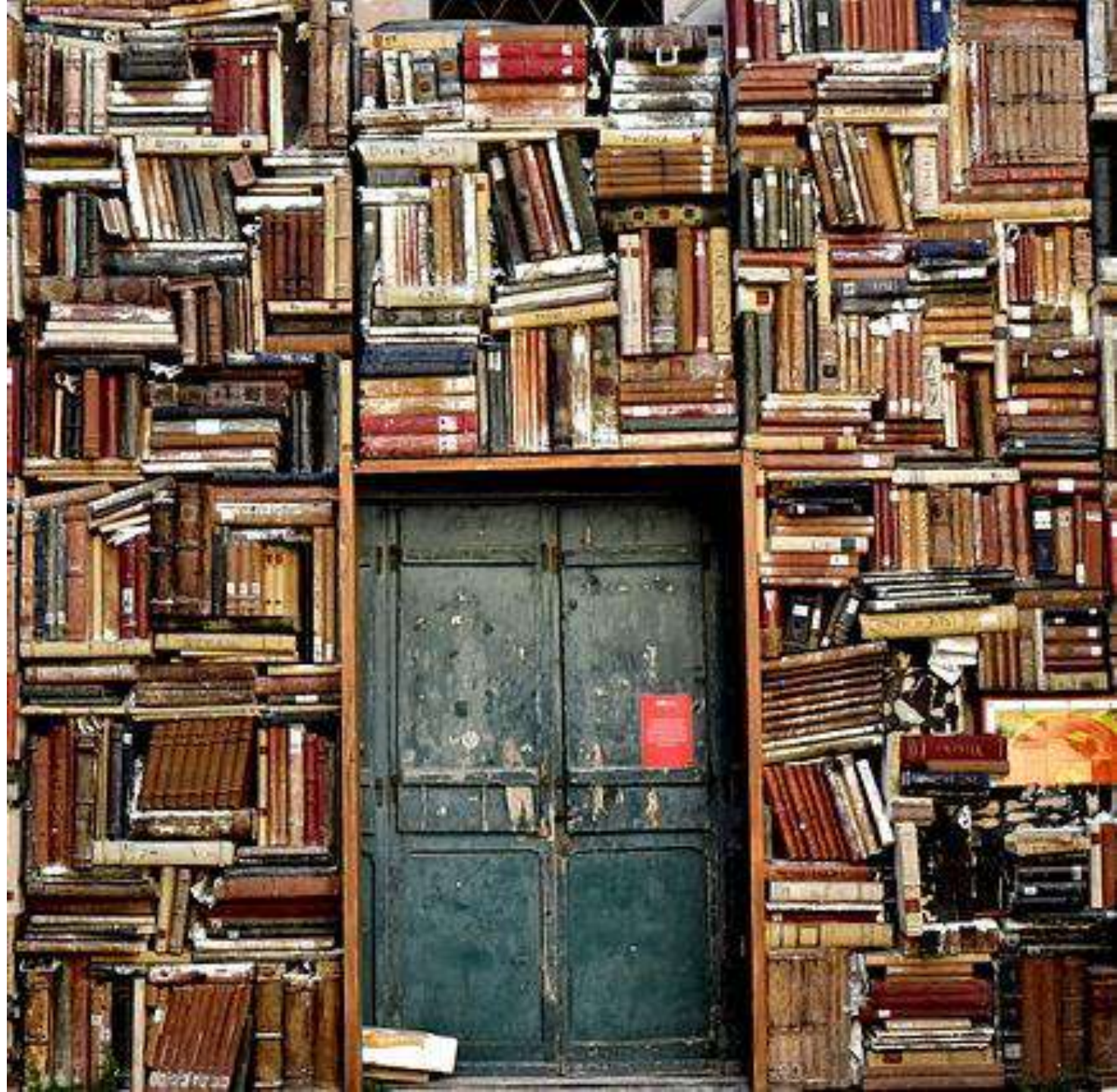
Nida



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Achtergrond

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# ESCS

= Economische, Sociale, and Culturele Status

Voorbeelden van ESCS indicatoren voor kinderen:

- thuistaal
- inkomen
- Beroep van ouders
- Opleidingsniveau van ouders

➔ Vaak ongelijke kansen



# Cognitief talent





# Less advantaged background

- Incomplete LVS
- Limited reading ability, understanding often 1 à 2 education levels lower
- Less extracurricular activities
- ESCS: less money and resources
- Cultural background, fear e.g.. 'acting white' (Hadioui, 2010; <https://www.youtube.com/watch?v=bW3hp9StP-E>)
- Motivation

Effect on **Identification!** (language?)

- ➔ Is identification through non-verbal test of cognitive abilities the solution?
- ➔ Does a language programme improve learning outcomes?

# CEOS onderzoek

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PROCEDURE





Creating equal opportunities at school

# Onderzoeksteam & partners



CENTRUM VOOR  
PSYCHODIAGNOSTIEK  
@THOMAS MORE



 **ECHA**  
EUROPEAN COUNCIL  
FOR HIGH ABILITY  
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**ZUIDER  
GYMNASIUM**

Stedelijk Lyceum  
Pestalozzi

**A** Stedelijk  
Onderwijs



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# Projectdoelen

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Identificatie van onzichtbaar  
cognitief talent



Ontwikkeling van een  
taalprogramma

# PRETEST: Identificatie eerstejaarsstudenten

## ESCS indicatoren

- Thuistaal
- Migratie achtergrond
- Opleiding moeder/ beroep vader

## Selectie van het cognitief talent

- COVAT-3
- Non-Verbaal testen (Fluide redeneren)
  - Puntreeksen
  - Symbool redeneren



# PRE & POSTTEST: Effectiviteit van het programma

## Motivatie

- Motivatievragenlijst TALENT ([www.projecttalent.be](http://www.projecttalent.be))
  - Motivatie
  - A-motivatie
  - Betrokkenheid
  - Flow & burn-out

## Schoolresultaten

- Nederlands
- Wiskunde
- Geschiedenis
- Aardrijkskunde
- Kunst

## Extra curriculaire

- COVAT-3
- Verbale testen (taalontwikkeling)
  - Schiften
  - Tegenstellingen





Digitaal  
CHC-model  
Groepsafname

# COVAT-3<sup>©</sup>

# CEOS Onderzoek

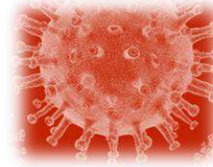
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DEELNEMERS



# Deelnemers

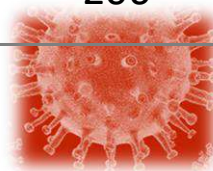
Wave 1 (Sept-Oct 2019)	Total first- year students	Participating students	♂ /♀	Mean age (SD)	Age range
<b>School A (BE)</b>	97	58 (60%)	23/35 (40%/60%)	11.88 (0.70)	11-14
<b>School B (BE)</b>	154	84 (55%)	43/41 (51%/49%)	11.94 (0.55)	11-14
<b>School C (NL)</b>	318	179 (56%)	86/91 (48%/51%)	12.19 (0.56)	11-13
<b>School D (NL)</b>	-	40 (-)	22/18 (55%/45%)	11.67 (0.57)	10-13
<b>Total</b>		361	174/185 (48%/52%)		



Ouders moeilijk te bereiken

# Deelnemers

Wave 2 (Oct-Nov 2020)	Total first-year students	Participating students	♂ /♀	Mean age (SD)	Age range
School A (BE)	81	35 (43%)	15/20 (43%/57%)	11.67 (0.58)	11-13
School B (BE)	153	55 (36%)	27/28 (49%/51%)	11.85 (0.73)	10-13
School C (NL)	294	100 (34%)	48/52 (48%/52%)	12.16 (0.16)	10-14
School D (NL)	-	16 (-)	9/7 (56%/44%)	12.00 (0.37)	11-13
<b>Total</b>		<b>206</b>	<b>99/107</b> (48%/52%)		



# Schoolvakken



**Algemeen**  
-  
**Optie Latijn/Grieks**

**Algemeen**  
-  
**Andere**

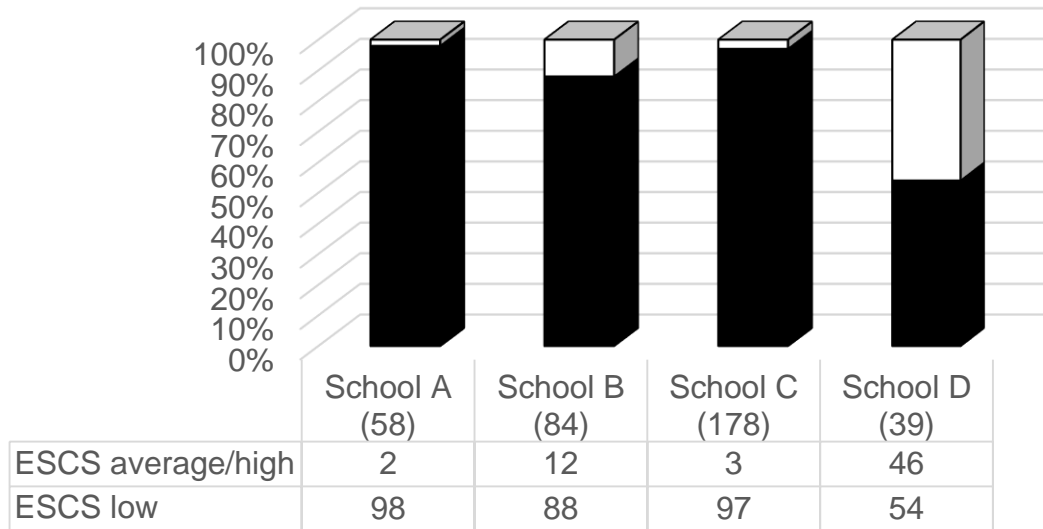
**Technische focus**

**beroepsopleiding**

School A	X	X		
School B	X	X		
School C	X	X	X	X
School D	X			

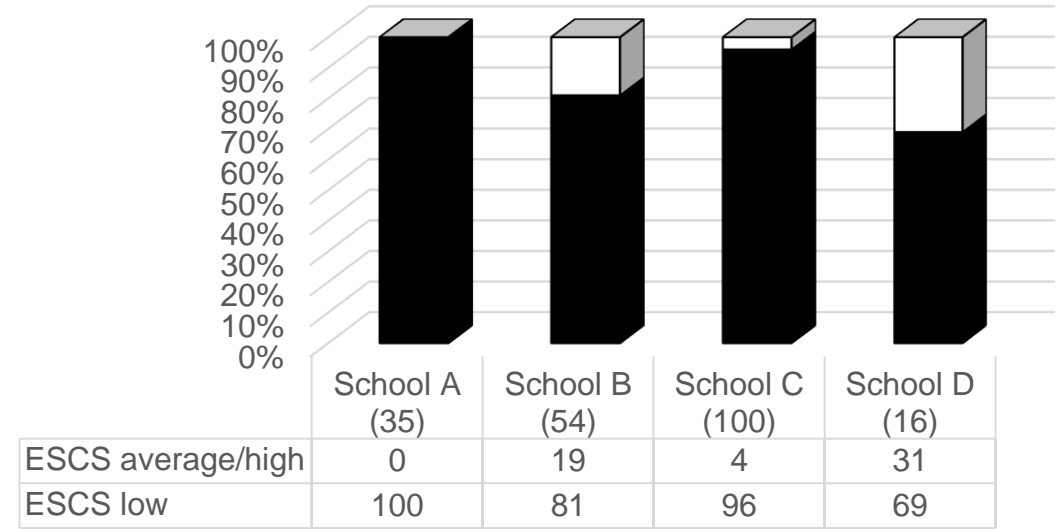
# School ESCS verschillen

ESCS status 19-20



■ ESCS low □ ESCS average/high

ESCS status 20-21

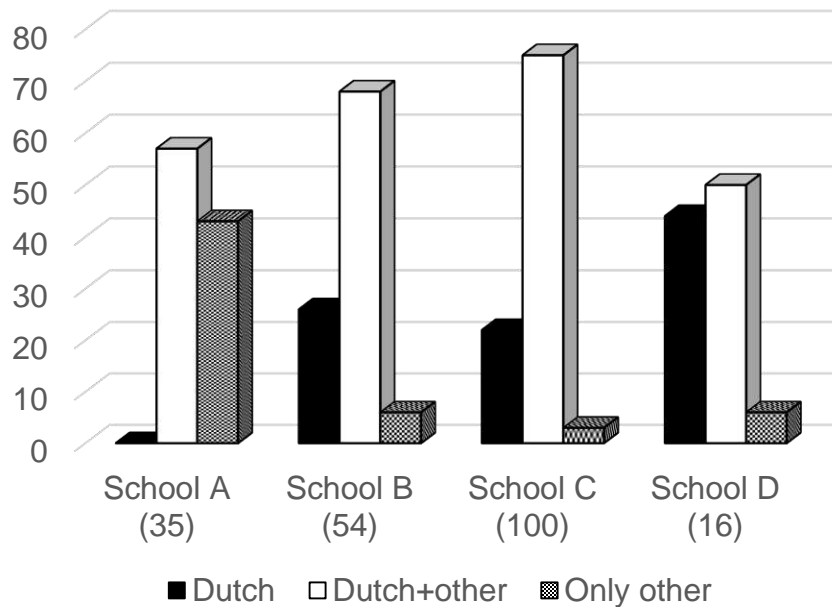


■ ESCS low □ ESCS average/high

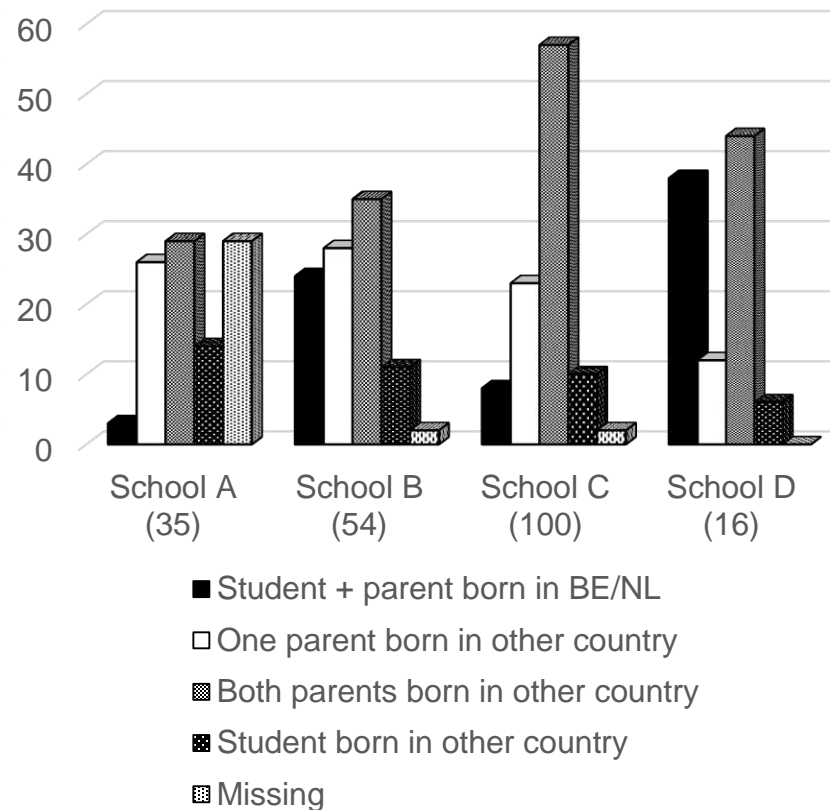


# Schoolverschillen in ESCS indicatoren

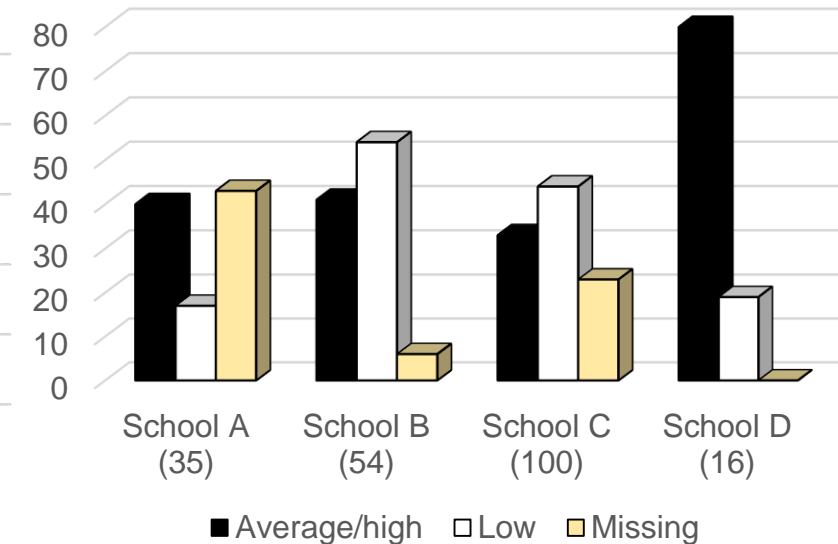
## Home language 20-21



## Migration status 20-21



## Low education mother / low occupation status father 20-21



Similar at wave 1  
(19-20)

# CEOS onderzoek

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RESULTATEN



# 1. Belang van ESCS in identificatieproces

Table 7. Differences in scores on the non-verbal and verbal extracurricular test based on ESCS status and school.

Dependent variable	Fixed factors	SS	df	MS	F	Sign	Partial eta squared
Non-verbal test	ESCS	443.219	1	443.219	7.251	.007	.013
	School	3322.820	3	1107.607	18.121	.000	.089
	ESCS * School	654.432	3	218.144	3.569	.014	.019
Verbal	ESCS	268.121	1	268.121	5.294	.022	.009
	School	2310.795	3	770.265	15.210	.000	.076
	ESCS * School	300.737	3	100.246	1.980	.116	.011

## 2. Identificatie van cognitief talent

Table 10. Pearson correlations between the extracurricular tests and the school results (transformed to linear z-scores).

		verbal test	Dutch	Math	History	Geography	Art
Overall	non-verbal test	.41	.15	.26	.24	.26	.14
	verbal test		.32	.14	.24	.14	.14
	Dutch			.41	.54	.45	.33
	Math				.52	.42	.26
	History					.47	.28
	Geography						.21
School A	non-verbal test	.49	.39	.38	.38	.28	.05
	verbal test		.52	.20	.22	.28	.11
	Dutch			.46	.64	.63	.41
	Math				.57	.55	.29
	History					.54	.35
	Geography						.30
School B	non-verbal test	.35	.21	.33	.38	.10	.21
	verbal test		.45	.25	.35	.15	.25
	Dutch			.34	.55	.32	.29
	Math				.57	.15	.08
	History					.40	.27
	Geography						.09
School C	non-verbal test	.37	-.18	.07	-.07	.40	.15
	verbal test		-.05	-.04	.13	-.02	.06
	Dutch			.44	.40	.37	.29
	Math				.40	.51	.39
	History					.46	.23
	Geography						.24

Note. The overall correlations were computed through Fisher z transformation; the school results for school D were missing.

- Verschillen tussen scholen
- Verbale test: gemiddelde correlatie met Nederlands
- Non-verbale test: lage correlaties

➔ Non-verbale test identificeert ongezien cognitief potentieel

## 2. Identificatie van cognitief talent

Table 11. Percentage of the identified cognitive talented students who scored in the top 20% on the extracurricular verbal test and the school results

		Verbal test	Dutch	Math	History	Geography	Art	Total extracurricular/school results
Low ESCS	School A	13 (57%)	11 (48%)	5 (21%)	8 (35%)	9 (39%)	9 (39%)	23/23
	School B	14 (45%)	7 (22%)	13 (42%)	14 (45%)	7 (22%)	24 (77%)	61/31
	School C	30 (47%)	20 (33%)	28 (47%)	23 (38%)	17 (28%)	18 (30%)	64/60
	School D	6 (50%)	-	-	-	-	-	12/-
all	School A	Only 1 student with average to high ESCS so see results low ESCS						
	School B	14 (45%)	6 (19%)	12 (39%)	12 (39%)	5 (16%)	24 (77%)	61/31
	School C	Analyses showed no difference for the non-verbal test for different ESCS background						
	School D	3 (25%)	-	-	-	-	-	12/-

- Minder dan de helft van de cognitief getalenteerde leerlingen met lage ESCS (21 tot 48%) toonden leerprestaties in de top 20% van alle leerlingen met lage ESCS in dezelfde school (behalve voor kunst).
- Zelfs minder wanneer niet gekeken werd naar ESCS

# CEOS onderzoek

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CONCLUSIE



## Conclusie:

Identificatie van cognitief talent:

- Non-verbale testen in combinatie met kennis van ESCS en begaafdheid
- Informatie van de ouders en de leerkracht
- Informatie van het kind
- Dynamisch testen/ response to intervention (RTI)
- Multidisciplinair

**! Combinatie noodzakelijk, elke informatiebron heeft eigen bias**



Bedankt voor uw aandacht!  
Vragen?

<https://bureautalent.nl/projecten/ceos-opbrengsten>

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