

KLIMAAT EN CULTUUR:

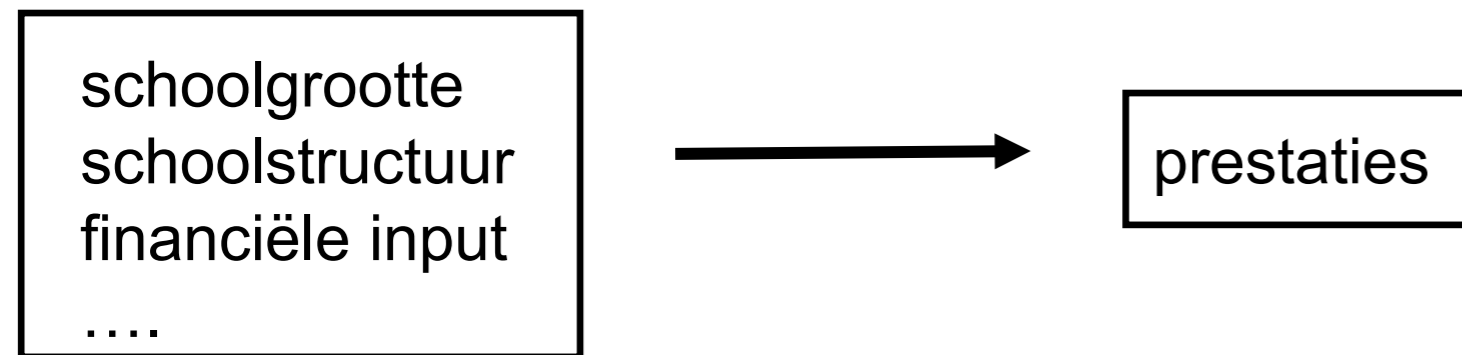
METEN VAN PROCESSEN IN SCHOOLEFFECTENONDERZOEK

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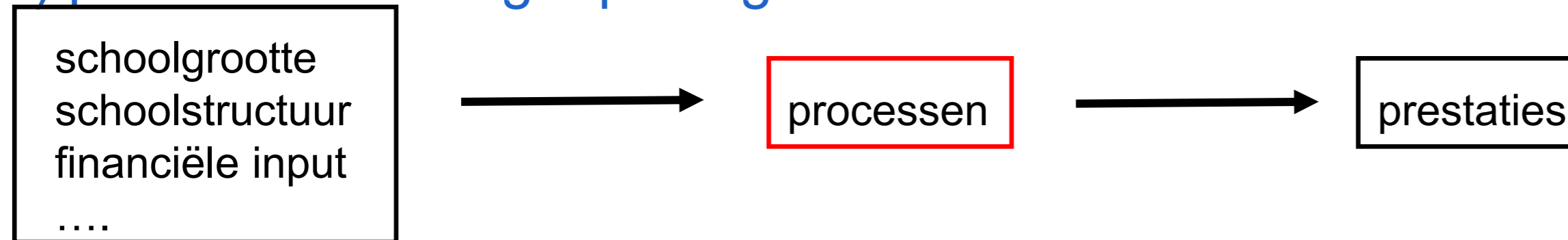
Schooleffectenonderzoek

→ onderzoek waarbij op min of meer grote schaal wordt nagegaan welke schoolkenmerken samengaan met bepaalde uitkomsten

1) input-output-benadering: school = 'black box'



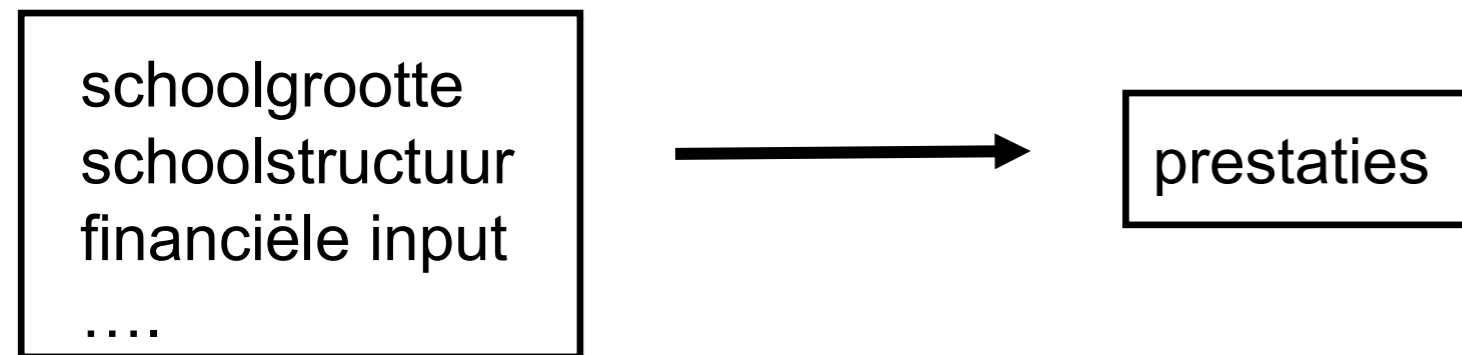
2) procesbenadering: opening 'black box'



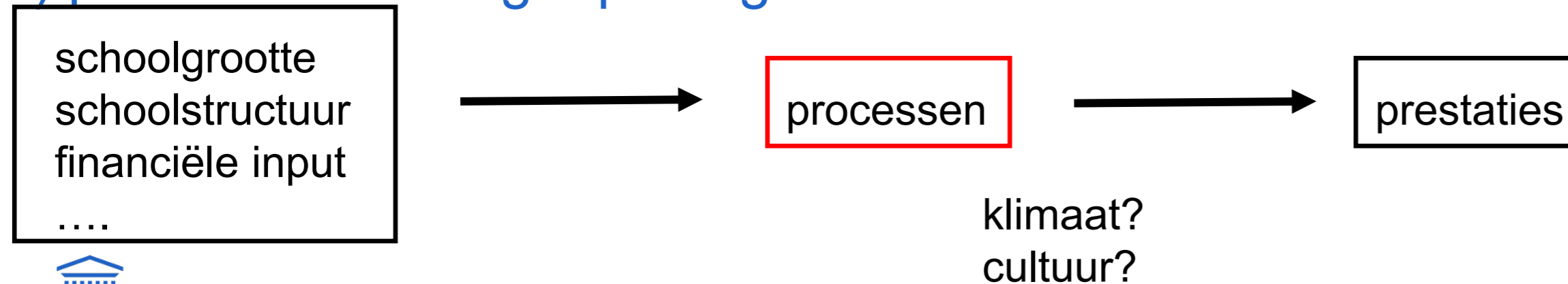
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1) input-output-benadering: school = 'black box'



2) procesbenadering: opening 'black box'



klassiek voorbeeld procesbenadering:

Rutter e.a. (1979) 'Fifteen thousand hours, secondary schools and their effects on children'

→ longitudinaal onderzoek in 12 Londense secundaire scholen

conclusie:

belangrijke determinanten van schoolresultaten zijn schoolkenmerken als

- kwaliteit van de interactie tussen leerlingen en leerkrachten
- atmosfeer van samenwerking en zorg
- verwachtingen op academisch vlak
- ...

kortom: het ETHOS van de school

of: het **NORMATIEVE KLIMAAT / CULTUUR**

Klimaat

bron: - organisatiestudies
- persoonlijkheid van een organisatie

definitie = geheel van kenmerken van een organisatie die

- 1) deze organisatie onderscheiden van andere
- 2) langdurig zijn
- 3) het gedrag van de leden van de organisatie beïnvloeden

+ 4) gepercipieerd kunnen worden

initieel: - “psychologisch” klimaat (individuele percepties)

naderhand ook: organisatieklimaat door aggregatie van individuele percepties
→ collectief klimaat

maar: objectief organisatiekenmerk?

impliciete assumpties: - percepties zijn accuraat
- percepties zijn gedeeld

probleem: deze assumpties worden nooit of zelden getest

theoretische vraagstukken klimaat:

input $\overset{?}{\rightarrow}$ klimaat (oorsprong klimaat?)

klimaat $\overset{?}{\rightarrow}$ output (circulaire redenering - tautologie)

Cultuur

- bron:
- klassiek antropologisch en sociologisch concept
 - “inhoud” van groepen en organisaties (vs. structuur)
 - kwalitatieve benadering

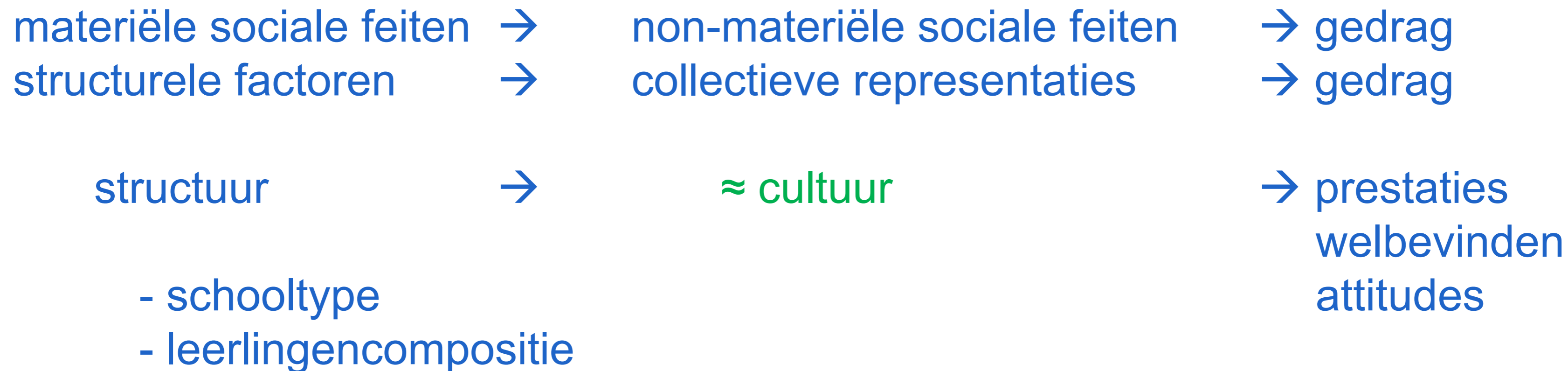
definitie:

geheel van *gedeelde* assumpties/overtuigingen/betekenenissen van leden van een groep of organisatie met betrekking tot bepaalde aspecten van de groep of organisatie die over het algemeen als vanzelfsprekend worden gezien

→ externaliseerd door waarden en artefacten

Inpassing in schooleffectenonderzoek → theoretische basis

klassiek sociologisch (E. Durkheim)



Theoretische vraagstukken

- theorieën over ontstaan cultuur (zie A. Cohen)
 - cf. klimaat: theorie over ontstaan gedeelde percepties,
niet over ontstaan van dat wat gepercipieerd wordt
- theorieën over effecten
 - socialisatie
 - referentiegroep

Klimaat ≠ cultuur

verhouding cultuur tot klimaat? → bv. Tagiuri (1968)

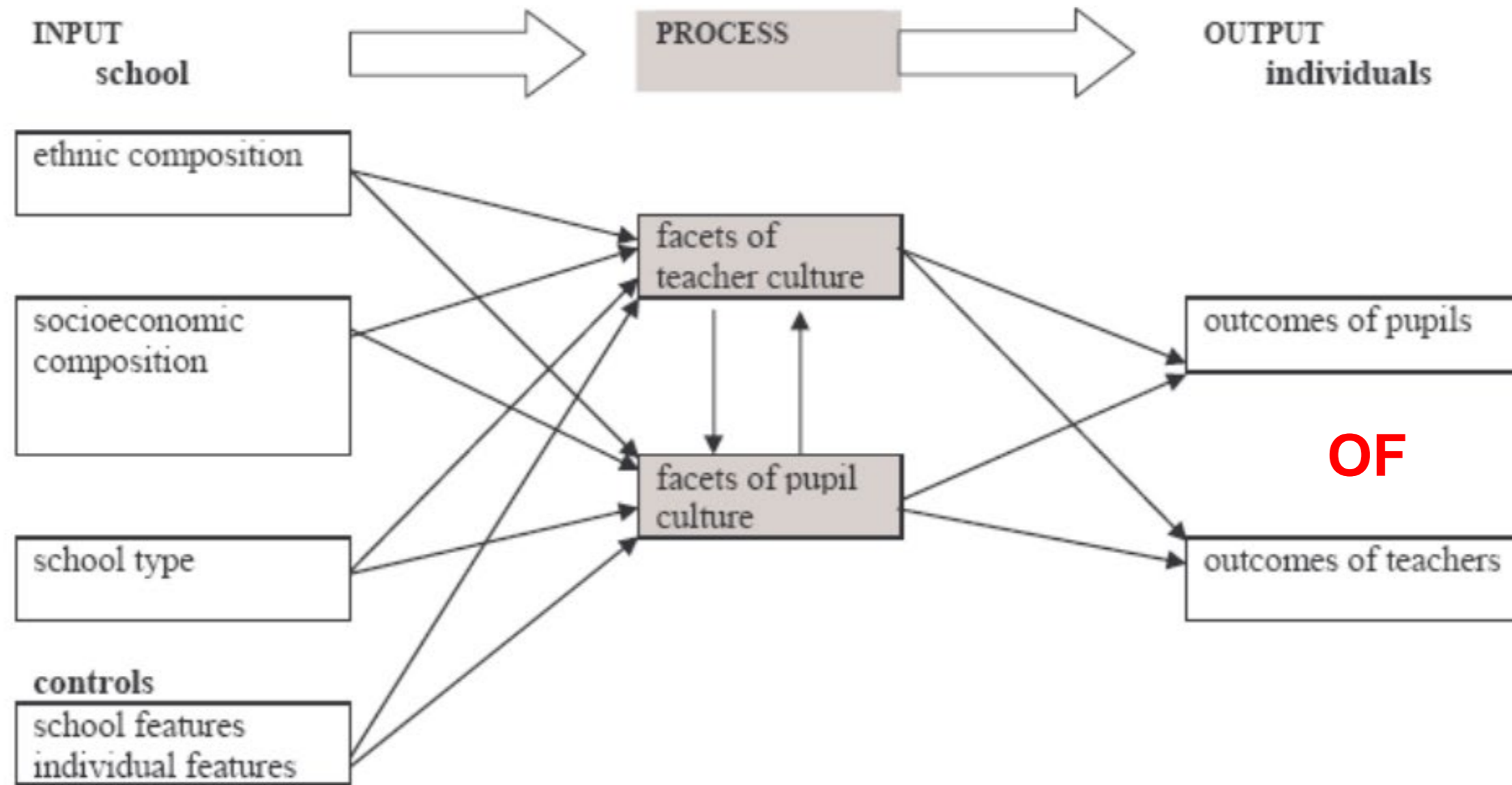
- klimaat:
1. ecologie (infrastructuur, architectuur, ...)
 2. samenstelling populatie
 3. sociaal systeem (relaties, cohesie)
 4. **cultuur (als geheel van overtuigingen)**

Inpassing in schooleffectenonderzoek → kwantitatieve meting

Relevantie

- om schooleffecten te verklaren → theorieconstructie
- inspiratie: kwalitatief onderzoek (casestudies)
- uitkomsten → niet alleen prestaties
- combinatie leerkracht- en leerlingkenmerken

Illustratie model



Meting cultuur – zie definitie:

1. persoonlijke assumpties/betekenis/overtuigingen via survey

2. onderzoek 'gedeeldheid'

→ substantiële variantie tussen scholen (Rho)

→ variantie binnen scholen < variantie tussen scholen

→ One-way Anova leerlingen/leerkrachten: factor = id school
afhankelijke = assumpties

$$ICC = (BMS - WMS) / BMS > 0.60$$

3. aggregeren persoonlijke assumpties/overtuigingen → gemiddelde
+ standaardafwijking indicatie van sterkte cultuur

TGRA

Descriptives

| | N | Mean | Std. Deviation | Std. Error | 95% Confidence Interval for Mean | | Minimum | Maximum |
|----|----|--------|----------------|------------|----------------------------------|-------------|---------|---------|
| | | | | | Lower Bound | Upper Bound | | |
| 1 | 9 | ,7852 | ,48737 | ,16246 | ,4106 | 1,1598 | ,00 | 1,60 |
| 2 | 4 | 1,1000 | ,27487 | ,13744 | ,6626 | 1,5374 | ,73 | 1,40 |
| 4 | 9 | ,9333 | ,44845 | ,14948 | ,5886 | 1,2780 | ,47 | 1,60 |
| 5 | 27 | ,7741 | ,59746 | ,11498 | ,5377 | 1,0104 | ,00 | 2,27 |
| 6 | 9 | ,7704 | ,46081 | ,15360 | ,4162 | 1,1246 | ,07 | 1,47 |
| 7 | 22 | 1,0353 | ,67386 | ,14367 | ,7365 | 1,3341 | ,00 | 2,53 |
| 8 | 21 | 1,0446 | ,57995 | ,12655 | ,7806 | 1,3085 | ,00 | 2,07 |
| 9 | 29 | ,9149 | ,59838 | ,11112 | ,6873 | 1,1426 | ,00 | 2,00 |
| 10 | 12 | ,9595 | ,51371 | ,14829 | ,6331 | 1,2859 | ,46 | 2,13 |
| 11 | 8 | ,7500 | ,40903 | ,14461 | ,4080 | 1,0920 | ,13 | 1,60 |
| 12 | 19 | 1,2905 | ,65342 | ,14991 | ,9755 | 1,6054 | ,33 | 2,53 |
| 13 | 17 | 1,2745 | ,56169 | ,13623 | ,9857 | 1,5633 | ,27 | 2,47 |
| 14 | 25 | 1,3733 | ,39954 | ,07991 | 1,2084 | 1,5383 | ,67 | 2,27 |
| 15 | 30 | 1,2276 | ,61745 | ,11273 | ,9971 | 1,4582 | ,00 | 3,00 |
| 16 | 21 | 1,0857 | ,53131 | ,11594 | ,8439 | 1,3276 | ,00 | 2,00 |
| 17 | 5 | ,6905 | ,17176 | ,07681 | ,4772 | ,9037 | ,40 | ,80 |
| 18 | 35 | ,9695 | ,52002 | ,08790 | ,7909 | 1,1482 | ,00 | 1,93 |
| 19 | 7 | ,9048 | ,45681 | ,17266 | ,4823 | 1,3272 | ,13 | 1,47 |
| 20 | 21 | 1,1016 | ,27858 | ,06079 | ,9748 | 1,2284 | ,53 | 1,60 |
| 21 | 24 | 1,2667 | ,51151 | ,10441 | 1,0507 | 1,4827 | ,13 | 2,27 |
| 22 | 26 | 1,0256 | ,48261 | ,09465 | ,8307 | 1,2206 | ,00 | 2,47 |
| 23 | 33 | 1,1273 | ,65513 | ,11404 | ,8950 | 1,3596 | ,00 | 2,27 |
| 24 | 23 | 1,2151 | ,49160 | ,10251 | 1,0025 | 1,4277 | ,27 | 2,21 |
| 25 | 17 | 1,0763 | ,58115 | ,14095 | ,7775 | 1,3751 | ,20 | 1,87 |
| 26 | 29 | 1,1289 | ,48103 | ,08932 | ,9459 | 1,3119 | ,00 | 2,07 |
| 27 | 28 | 1,2313 | ,44824 | ,08471 | 1,0575 | 1,4051 | ,20 | 2,27 |
| 28 | 10 | ,8467 | ,54256 | ,17157 | ,4585 | 1,2348 | ,07 | 1,67 |
| 29 | 20 | ,9995 | ,59758 | ,13362 | ,7198 | 1,2792 | ,00 | 1,93 |
| 30 | 24 | 1,0520 | ,48955 | ,09993 | ,8453 | 1,2587 | ,00 | 2,20 |
| 31 | 6 | ,9222 | ,40533 | ,16548 | ,4968 | 1,3476 | ,53 | 1,67 |
| 32 | 56 | ,9199 | ,40347 | ,05392 | ,8118 | 1,0279 | ,13 | 2,20 |
| 33 | 13 | ,9026 | ,67309 | ,18668 | ,4958 | 1,3093 | ,00 | 2,13 |
| 34 | 10 | ,9324 | ,75304 | ,23813 | ,3937 | 1,4711 | ,07 | 2,47 |
| 36 | 40 | 1,0107 | ,48351 | ,07645 | ,8561 | 1,1653 | ,00 | 2,13 |
| 37 | 29 | 1,0299 | ,47629 | ,08844 | ,8487 | 1,2111 | ,20 | 2,00 |
| 38 | 7 | 1,3143 | ,71979 | ,27205 | ,6486 | 1,9800 | ,40 | 2,67 |
| 39 | 37 | 1,0797 | ,54234 | ,08916 | ,8988 | 1,2605 | ,00 | 2,73 |
| 40 | 16 | ,6786 | ,41514 | ,10379 | ,4574 | ,8998 | ,00 | 1,33 |
| 41 | 20 | 1,2027 | ,62640 | ,14007 | ,9096 | 1,4959 | ,07 | 2,55 |
| 42 | 32 | ,8583 | ,43263 | ,07648 | ,7024 | 1,0143 | ,07 | 1,87 |
| 43 | 17 | ,9059 | ,31363 | ,07607 | ,7446 | 1,0671 | ,47 | 1,33 |
| 44 | 8 | ,7583 | ,43342 | ,15324 | ,3960 | 1,1207 | ,27 | 1,40 |
| 45 | 17 | 1,0549 | ,48088 | ,11663 | ,8077 | 1,3021 | ,00 | 2,00 |
| 46 | 25 | 1,0063 | ,40863 | ,08173 | ,8376 | 1,1750 | ,33 | 1,80 |
| 47 | 21 | 1,0127 | ,73775 | ,16099 | ,6769 | 1,3485 | ,00 | 2,40 |
| 48 | 30 | 1,0644 | ,38216 | ,06977 | ,9217 | 1,2071 | ,07 | 2,00 |
| 49 | 17 | ,9922 | ,45940 | ,11142 | ,7560 | 1,2284 | ,20 | 1,80 |
| 50 | 16 | ,7298 | ,59340 | ,14835 | ,4136 | 1,0460 | ,00 | 1,60 |
| 52 | 20 | ,9640 | ,51515 | ,11519 | ,7229 | 1,2051 | ,07 | 2,00 |
| 53 | 13 | ,8205 | ,57888 | ,16055 | ,4707 | 1,1703 | ,00 | 1,67 |
| 54 | 42 | 1,0104 | ,40561 | ,06259 | ,8840 | 1,1368 | ,07 | 1,67 |
| 55 | 11 | 1,0970 | ,31744 | ,09571 | ,8837 | 1,3102 | ,67 | 1,80 |
| 56 | 32 | ,9625 | ,48988 | ,08660 | ,7859 | 1,1391 | ,13 | 2,20 |
| 57 | 33 | 1,0072 | ,43527 | ,07577 | ,8529 | 1,1616 | ,07 | 1,67 |
| 58 | 16 | ,9458 | ,40238 | ,10059 | ,7314 | 1,1602 | ,27 | 1,73 |
| 59 | 19 | ,9025 | ,50135 | ,11502 | ,6609 | 1,1442 | ,13 | 2,27 |

ANOVA

TGRA

| | Sum of Squares | df | Mean Square | F | Sig. |
|----------------|----------------|------|-------------|-------|------|
| Between Groups | 25,086 | 58 | ,433 | 1,666 | ,002 |
| Within Groups | 306,065 | 1179 | ,260 | | |
| Total | 331,152 | 1237 | | | |

→ geen cultuur
ICC = 0.399

Percepties vs. persoonlijke assumpties/overtuigingen

“Punten zijn niet echt van belang *in deze klas*”
versus “*Voor mij* zijn punten niet echt van belang”

“*Leerkrachten* in deze school vertrouwen hun leerlingen”
versus “*Ik* denk dat de leerlingen in deze school te vertrouwen zijn”
of “*Ik* vertrouw de leerlingen in deze school”

“*Leerlingen* in deze school studeren graag”
versus “*Ik* studeer graag”

Verskil aggregeren percepties of assumpties?

Empirische test

Vlaams Leerlingen Onderzoek (VLO) – 2004-2005

2104 leerkrachten in 84 secundaire scholen

2 schalen

bron: Classroom Environment Scale (Moos & Trickett)
subschaal: “competition”

Verskil aggregeren percepties of assumpties?

Description of two scales to measure competition: items, bivariate correlations between equivalent items, Cronbach's alpha, mean sum score (and standard deviation), Skewness, ICC and Rho

| Competition at school – personal beliefs and actions | Competition at school – perceptions | Bivariate correlations |
|---|---|------------------------|
| 1. I put pressure on the students to compete. | 1. Teachers at this school put pressure on the students to compete. | 0.485*** |
| 2. I encourage the students to get the best grade. | 2. Teachers at this school encourage the students to get the best grade. | 0.440*** |
| 3. To me it is important who can answer questions first in class. | 3. To the teachers in this school it is important who can answer questions first in class. | 0.441*** |
| 4. Competition between students is not important to me. | 4. Competition between students is not important to the teachers at this school. | 0.318*** |
| 5. I will lower a student's grade if he gets homework in late. | 5. Teachers at this school will lower a student's grade if he gets homework in late. | 0.308*** |
| 6. I care whether or not the students get good grades. | 6. Teachers at this school care whether or not the students get good grades. | 0.309*** |
| 7. I tell the students in class who got a good grade on homework, tests, etc. | 7. Teachers at this school tell the students in class who got a good grade on homework, tests, etc. | 0.504*** |
| 8. I expect the students to work hard for my courses. | 8. Teachers at this school expect the students to work hard for their courses. | 0.422*** |
| Valid N | 2069 (missing: 35) | 2038 (missing: 66) |
| Cronbach's alpha | 0.633 | 0.626 |
| Mean sum score | 23.91 (SD = 3.99) | 24.99 (SD = 3.09) |
| Skewness | -0.002 (SE = 0.054) | -0.293 (SE = 0.054) |
| ICC | 0.679 | 0.684 |
| Rho | 0.115 | 0.118 |

individueel
 $r = .42, p < .001$

geaggregeerd (school)
 $r = .39, p < .001$

Note: *** $p \leq 0.001$

Partial correlations between competition culture in terms of personal beliefs and actions and in terms of perceptions on the one hand and several general school features on the other hand, controlling for school size

| | <i>N</i> | Competition culture – personal beliefs and actions | Competition culture – perceptions |
|--------------------|----------|--|-----------------------------------|
| School sector | 84 | 0.413 ^{***} | 0.139 |
| Gender composition | 84 | −0.428 ^{***} | −0.120 |
| SES context | 84 | −0.337 ^{**} | 0.245 [*] |
| Ethnic composition | 84 | 0.143 | −0.128 |
| Study culture | 84 | −0.259 [*] | −0.014 |
| Mean GPA | 62 | −0.422 ^{***} | 0.231 |

Note: ^{*} $p = 0.051$, ^{**} $p < 0.05$, ^{***} $p \leq 0.001$

Voorbeeld

Correlates of intention to dropout in vocational secondary education. Results of logistic multilevel analysis, Bernoulli (HLM6).

| | Model 1 | Model 2 | Model 3 | Model 4 |
|----------------------------|-----------------------------------|-------------------------|-----------------------------------|-------------------------|
| <i>Intercept</i> | -2.163 (0.134) 0.115*** | -2.193 (0.127) 0.112*** | -2.278 (0.138) 0.103*** | -2.308 (0.136) 0.100*** |
| <i>School level</i> | | | | |
| School type | | 0.208 (0.251) 1.232 | 0.159 (0.269) 1.173 | 0.048 (0.264) 1.050 |
| Teachability culture | leerkrachten | -0.026 (0.012) 0.974* | -0.025 (0.012) 0.976 ⁺ | -0.028 (0.014) 0.972* |
| Futility culture | leerlingen | | | -0.148 (0.171) 0.862 |
| <i>Student level</i> | | | | |
| Gender | -0.084 (0.164) 0.920 | -0.033 (0.174) 0.968 | 0.048 (0.185) 1.049 | 0.053 (0.179) 1.054 |
| Age | -0.045 (0.052) 0.957 | -0.035 (0.052) 0.966 | -0.032 (0.052) 0.968 | 0.002 (0.054) 1.002 |
| SES | -0.077 (0.047) 0.926 | -0.067 (0.047) 0.935 | -0.055 (0.047) 0.947 | -0.053 (0.050) 0.949 |
| Immigrant background | 0.289 (0.213) 1.335 | 0.174 (0.212) 1.190 | 0.200 (0.217) 1.222 | 0.149 (0.244) 1.160 |
| Ability | -0.010 (0.008) 0.990 | -0.009 (0.008) 0.991 | -0.009 (0.008) 0.992 | -0.006 (0.008) 0.994 |
| Achievement | -0.016 (0.008) 0.984 [°] | -0.016 (0.008) 0.984* | -0.015 (0.008) 0.985 [°] | -0.011 (0.008) 0.989 |
| Retained | 0.245 (0.229) 1.278 | 0.214 (0.228) 1.239 | 0.224 (0.222) 1.251 | 0.154 (0.220) 1.166 |
| Teacher support | | | -0.092 (0.016) 0.913*** | -0.050 (0.017) 0.951** |
| Sense of futility | | | | 0.159 (0.023) 1.173*** |
| <i>Variance components</i> | | | | |
| Intercept U ₀ | 0.008 | 0.034 | 0.052 | 0.077 |

Note: The (unstandardized) gamma coefficients and odds ratios with the standard errors appearing in parentheses and the variance components U (when significant) are shown.

[°] $p = .057$, ⁺ $p = .052$, * $p < .05$, ** $p \leq .01$, *** $p \leq .001$.

Richtlijnen

- wees bewust van wat je wil meten (schoolkenmerk?)
- wees bewust van wat je werkelijk meet (individuele percepties?)
- test “gedeeltheid” vooraleer te aggregeren
- identificeer, definieer en meet *aspecten* van klimaat en cultuur
 - vermijd paraplubegrippen
- onderscheid groepen
 - differentiatieperspectief vs. integratieperspectief

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Van Houtte, M. & Van Maele, D. (2011) The black box revelation: in search for conceptual clarity regarding climate and culture in school effectiveness research. *Oxford Review of Education*, 37, 4, 505-524