

Accountability in the Netherlands

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Ideal:

Unobtrusive indicators of quality

Accountability

System level

- international assessments
- National assessments

School level

- End of primary education test
- Examination results

Assessment

- WHY
- WHO
- WHOM
- WHAT
- HOW



is assessed?



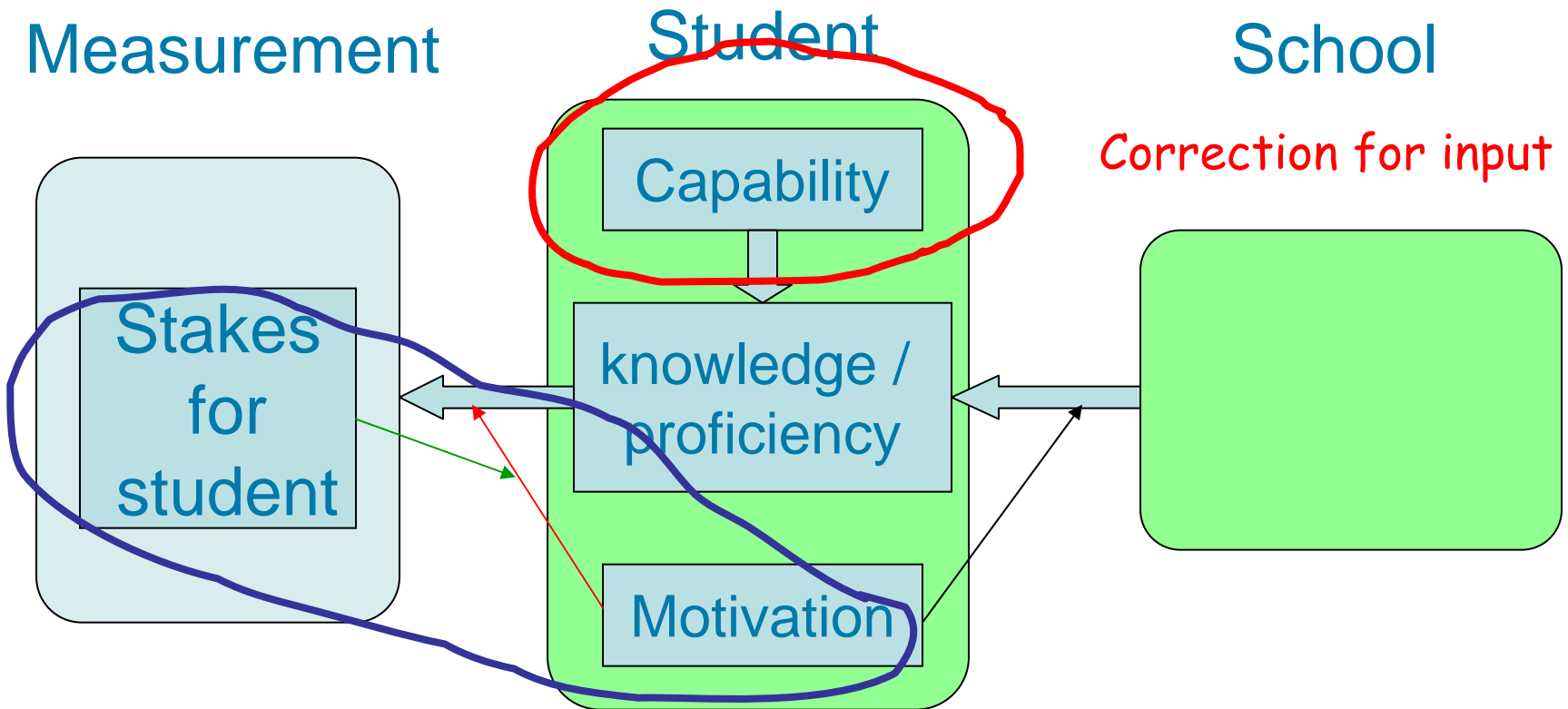
now you know

Who?

- Student
- School
- System

→ Complicating factor:
measurement always through student

Measurement of learning



Condition of measurement → function in education

School evaluation → mixing functions of the assessment

Evaluation of scores of the students (by the school, secondary education, etc)

Evaluation of the teacher (by school government)

- Aggregation of student results

Evaluation of the school (by inspectorate,, stakeholders)

- Aggregation of student results

Mixing functions is precarious

Stakeholders of education

- Politicians
 - State government
 - Regional government
 - Local government
- School government
- Teacher
- Student

Actors

- Politicians
 - State government
 - Regional government
 - Local government
- School government
- Teacher
- Student

Motivation of the student → assessment condition

Motivation of the teacher

Motivation of the school



now you know

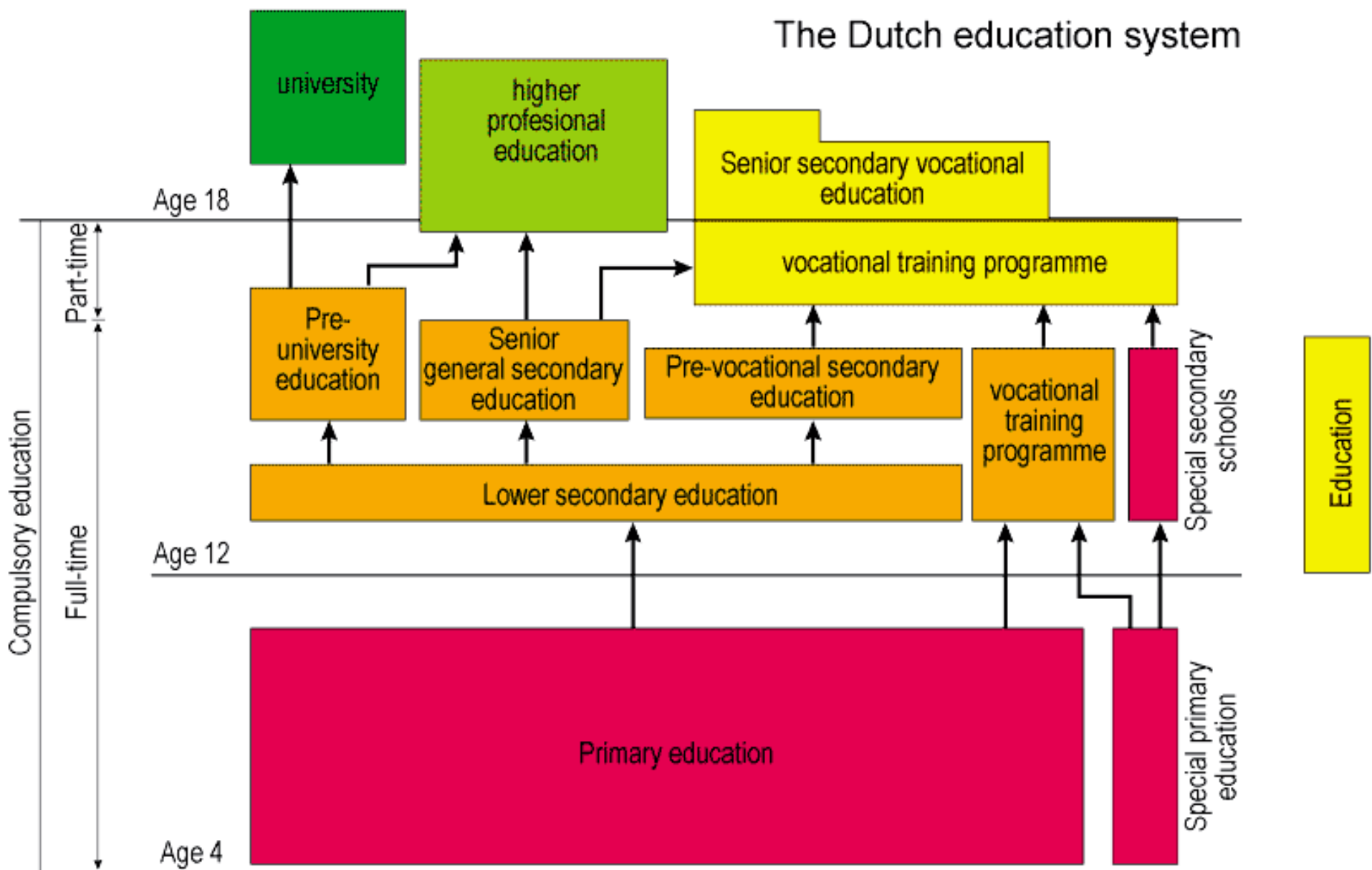


- School visits every 4 years (two days)
 - More often
 - half day visits
 - Extended visits if quality failed
- Observations, interviews, questionnaires
- School report on the internet
- 20+ indicators of quality

Future

- Risk based
- Extended inspections only if at risk
 - output is unsatisfactory for 3 years in a row
 - Summative and formative assessments
 - Drop outs
 - Reference of students to lower types of education
 - complaints
 - also based on annual reports

The Dutch education system



Assessments in the Netherlands

Primary Education

- End of Primary School Test
- Monitoring and Evaluation system
- National Assessment

Secondary Education

- Central examinations
- Entrance test teacher training

International Assessments

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International Assessments

When taken, purpose and participants

- When?
 - ✓ Last grade of primary school (age 11-12)
 - ✓ Three mornings
- Purpose?
 - ✓ Helps making the right decision about the type of secondary education that is best suited for a child
 - ✓ Gives information about the school's performance on the subject skills which are part of the test
- How many participants?
 - ✓ Approximately 6400 schools (85%) and 161.000 pupils

Type of test

- Educational achievement test
- Subject skills:
 - ✓ Language
 - ✓ Arithmetic/Mathematics
 - ✓ Study Skills
 - ✓ World Orientation (optional)
- All questions are multiple-choice; the children mark their answers on an answer sheet

Content of the Citotest -1-

Test sections, subsections and the number of questions in the Citotest 2007

	Number of questions (percentage within test section)
Language	Total: 100
a. Writing	30 (3/10)
b. Spelling of verbs	10 (1/10)
c. Spelling (all other than verbs)	10 (1/10)
d. Reading comprehension	30 (3/10)
e. Vocabulary	20 (1/5)
Arithmetic/Mathematics	Total: 60
a. Dealing with numbers and mental arithmetic	25 (5/12)
b. Proportions, fractions and percentages	20 (1/3)
c. Geometry, money and time	15 (1/4)
Study Skills	Total: 40
a. Using study texts	10 (1/4)
b. Using Information sources (e.g., dictionaries)	10 (1/4)
c. Using schemes, tables and graphs	10 (1/4)
d. Using maps	10 (1/4)
World Orientation (optional)	Total: 90
a. Geography	30 (1/3)
b. History	30 (1/3)
c. Biology	30 (1/3)
	Total: 290 questions

Example of a Arithmetic assignment

Geometry, money and time

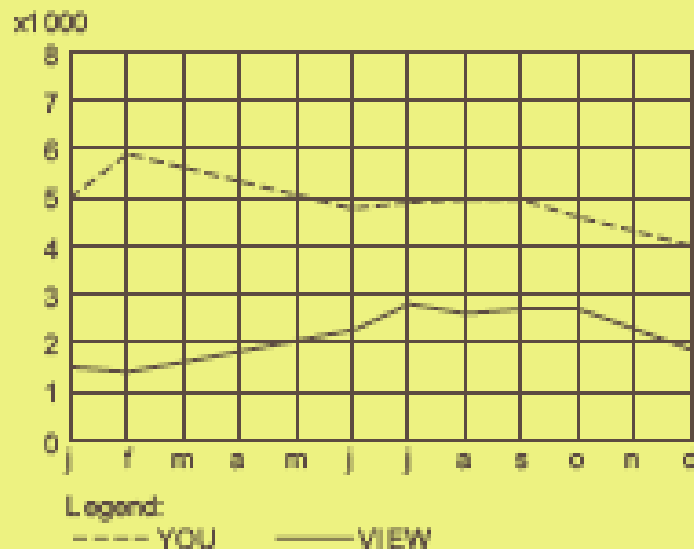
Amina cycles the 5000 meters in exactly 10 minutes. What is her mean speed?

- A 5 km/h
- B 25 km/h
- C 30 km/h
- D 50 km/h

Example of a Study Skills assignment

Using schemes, tables and graphs

Sales figures of two new magazines in 2000



The publisher expected to sell 5000 copies of the magazine 'YOU' every month and 2000 copies of the magazine 'VIEW'.

In which month were the sales of both magazines most to their expectations?

- A In January
- B In May
- C In July
- D In December

Example of a World Orientation assignment

Geography

ECLIPSE OF THE SUN



Legend

■ Total solar eclipse

On August 11, 1999, a solar eclipse was seen in Europe. Where a total solar eclipse took place is indicated on the map.

Which of these cities lies in that area?

- A Copenhagen
- B Madrid
- C Munich
- D Rome



now you know

Adapted and digital versions

- Adapted versions:
 - ✓ printed in braille
 - ✓ printed in black-and-white
 - ✓ large print
 - ✓ recorded (read out from tape or cd along with the printed questions).
- Digital versions:
 - ✓ Level Test (Niveautoets)
 - ✓ Resit Test (Inhaaltoets)
 - ✓ Digital Citotest (Digitale Eindtoets)

Results

- ✓ Schools send their answer sheets to Cito where they are scanned (approximately 500.000 sheets)
- ✓ Cito prints pupil reports and sends these to the schools
- ✓ Cito publishes pupil data and school reports on a secured site on the internet which is only accessible by the school in question

School reports

Schools can make three different kinds of school reports based on the scores of their pupils (from grade 8):

- School report A
- School report B
- the so-called IC-Table

8 End of Primary School Test

School Report A

eindtoets basisonderwijs

School 67890
CITOSCHOOL

Schoolstraat 123
1234 AB CITOCITY

Number of Pupils 2007: 52 of 52

Show Selection list 2006: 24 of 24

2005: 26 of 26

Printdate 5-3-2007

Explanation

Standard scores	Number questions	Average st. score	-2	-1	0	+1	+2
End of Primary School Test 2007	200	534,0			X-		
End of Primary School Test 2006	200	533,5			X---		
End of Primary School Test 2005	200	532,9			X----		

	Number questions	Average % of corr. answers	-2	-1	0	+1	+2
End of Primary School Test 2007	200	73%			X-		

Explanation part 1 of the table

Language	Number questions	Average % of corr. answers	-2	-1	0	+1	+2
Language	100	72%			I---		
1 Writing	30	66%			*I		
2 Spelling of verbs	10	65%			***I		
3 Spelling (all other than verbs)	10	49%			*****I		
4 Reading comprehension	30	87%			I*****		
5 Vocabulary	20	66%			I*****		

Arithmetic/Mathematics	Number questions	Average % of corr. answers	-2	-1	0	+1	+2
Arithmetic/Mathematics	60	61%			I-----		
6 Dealing with numbers and mental arithmetic	25	52%			*I		
7 Proportions, fractions and percentages	20	56%			*****I		
8 Geometry, money and time	15	58%			I*****		



End of Primary School Test

IC-standard scores and IC-percentiles

eindtoets basisonderwijs

School 67890
CITOSCHOOL

Schoolstraat 123
1234 AB CITOCITY

Number of Pupils 23 of 23
[Show Selection list](#)

Printdate 7-3-2007

Average standard scores EPST

- 1. Uncorrected : 535,5
- 2. Corrected for APW : 534,7 interval 532,1 – 537,3
- 3. Corrected for APW and RC : 536,0 interval 534,6 – 537,4

	Percentiles corrected for Average Pupil Weight (APW)			Percentiles corrected for APW and Reading Comprehension (RC)		
	lower boundary	IC-Percentile	upper boundary	lower boundary	IC-Percentile	upper boundary
Language	18	50	82	54	88	99
Producing texts						
• Writing of texts	29	66	91	55	90	99
• Spelling of verbs	8	28	60	9	33	68
• Spelling (all other than verbs)	28	67	93	37	80	98
Understanding Texts						
• Reading Comprehension	5	27	66	n.v.t.	n.v.t.	n.v.t.
Vocabulary	28	63	90	44	81	97

Use of the score on the Citotest

- For admission purposes by **schools of secondary education**
- As part of the supervision (performance indicator for the achievements at the end of the school period) by the **Inspectorate of Education** in the Netherlands
- By **local authorities** to see how ‘their’ schools are performing (permission from the governing bodies of the concerning schools is needed for this use)

Use of the score on the Citotest

Use by schools of secondary education -1-

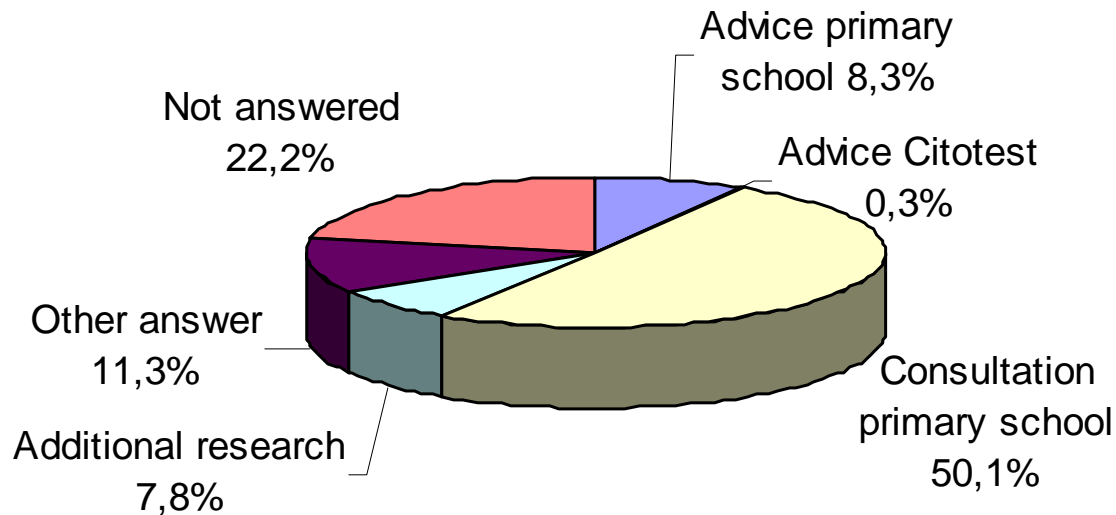
A sore point:

It is said (in the media) that in the admission process schools for secondary education only take into account the standard score on the Citotest (and the advice based on the standard score) and that they do not use the advice of the primary school in cases of discrepancies between the two information sources.

Use of the score on the Citotest

Use by schools of secondary education -2-

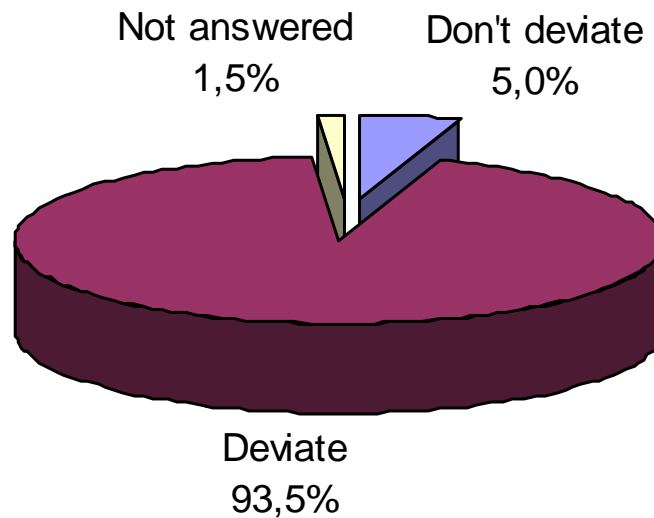
Basis of admission decision in case of discrepancies



Use of the score on the Citotest

Use by schools of secondary education -3-

Characterization use rules of thumb (decision rules)



Use of the score on the Citotest

Use by the Inspectorate of Education and local authorities

Somewhat unwanted side-effect of this use:
Citotest being seen by schools as a 'penalizing
accountability tool'

'Solution':

Stress the right use of data in communication

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International Assessments

Pupil Monitoring System

A **tool** for teacher and school to monitor in a reliable and systematic way:

- the progress of individual learners throughout their (primary) school career
- (aspects of) the quality of the school

Instruments

Figure 2: Tests in the Pupil Monitoring System

	Grades (4-12 years of age)							
	1	2	3	4	5	6	7	8
Ordering	*	*						
Language	*	*						
Orientation in Space and Time	*	*						
Technical Reading			*	*	*	*	*	*
Reading Comprehension			*	*	*	*	*	*
Listening Comprehension			*	*	*	*	*	*
Vocabulary			*	*	*	*	*	*
Spelling			*	*	*	*	*	*
General Language Ability				*	*	*	*	*
Arithmetic/Mathematics			*	*	*	*	*	*
World Orientation						*	*	*
Social-emotional development			*	*	*	*	*	*
English							*	*
Science and Technology						*	*	*

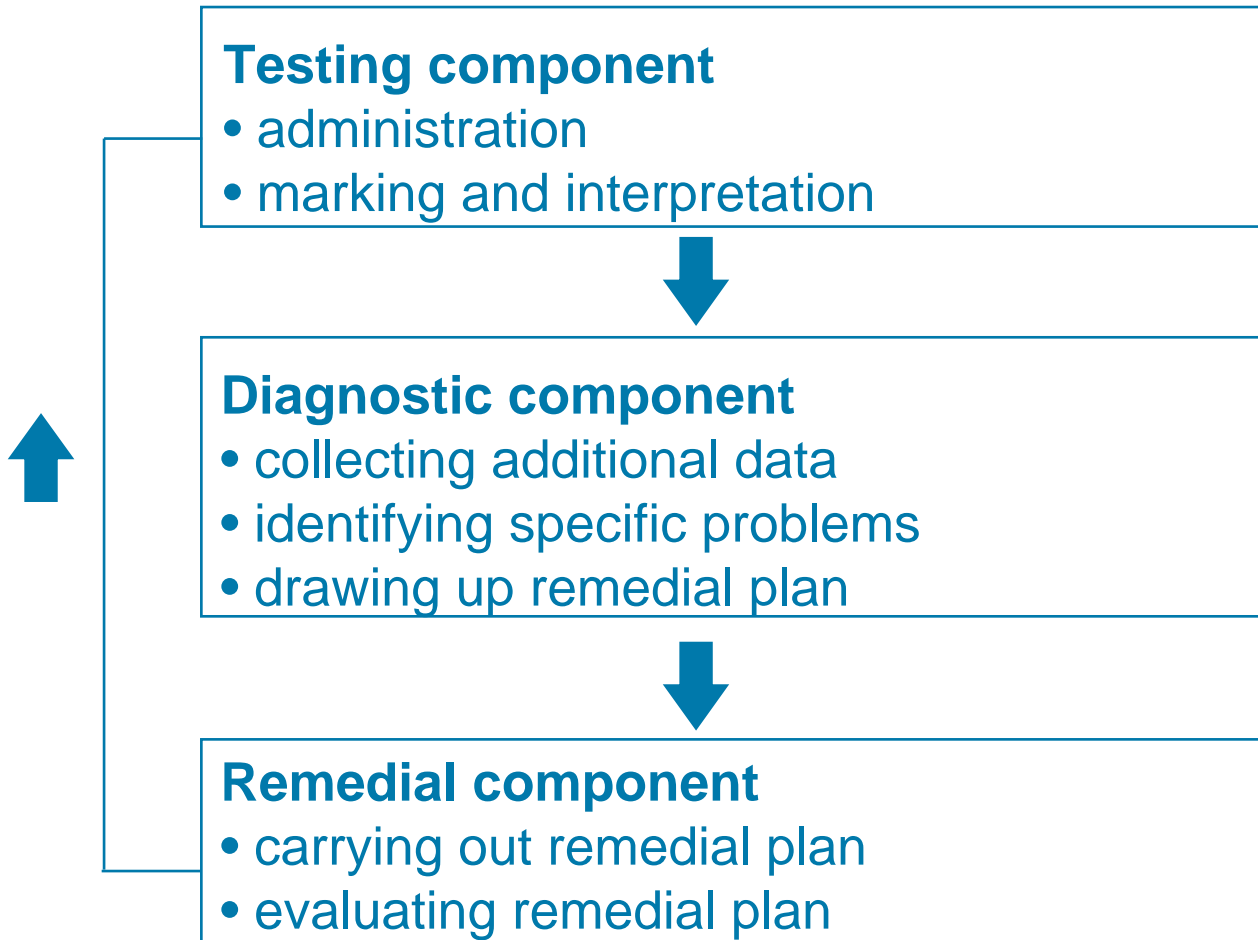
Grade 1-2: Kindergarten, nursery school or reception year

Grade 3-4: Foundation Phase

Grade 5-6: Intermediate Phase

Grade 7-8: Final Phase

Working procedure



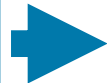
Measuring technique (IRT)

Allows:

- Test results that differ in content, difficulty and number of items can be compared
- Monitoring over years with different tests
- Position of pupil on scale to be compared with national reference group
- General conclusions on mastery to be made

test A
January

30 -
29 -
28 -
27 -
26 -
25 -
24 -
23 -



128
124
120
116
112
108
104
100
96
92
88
84
80
76



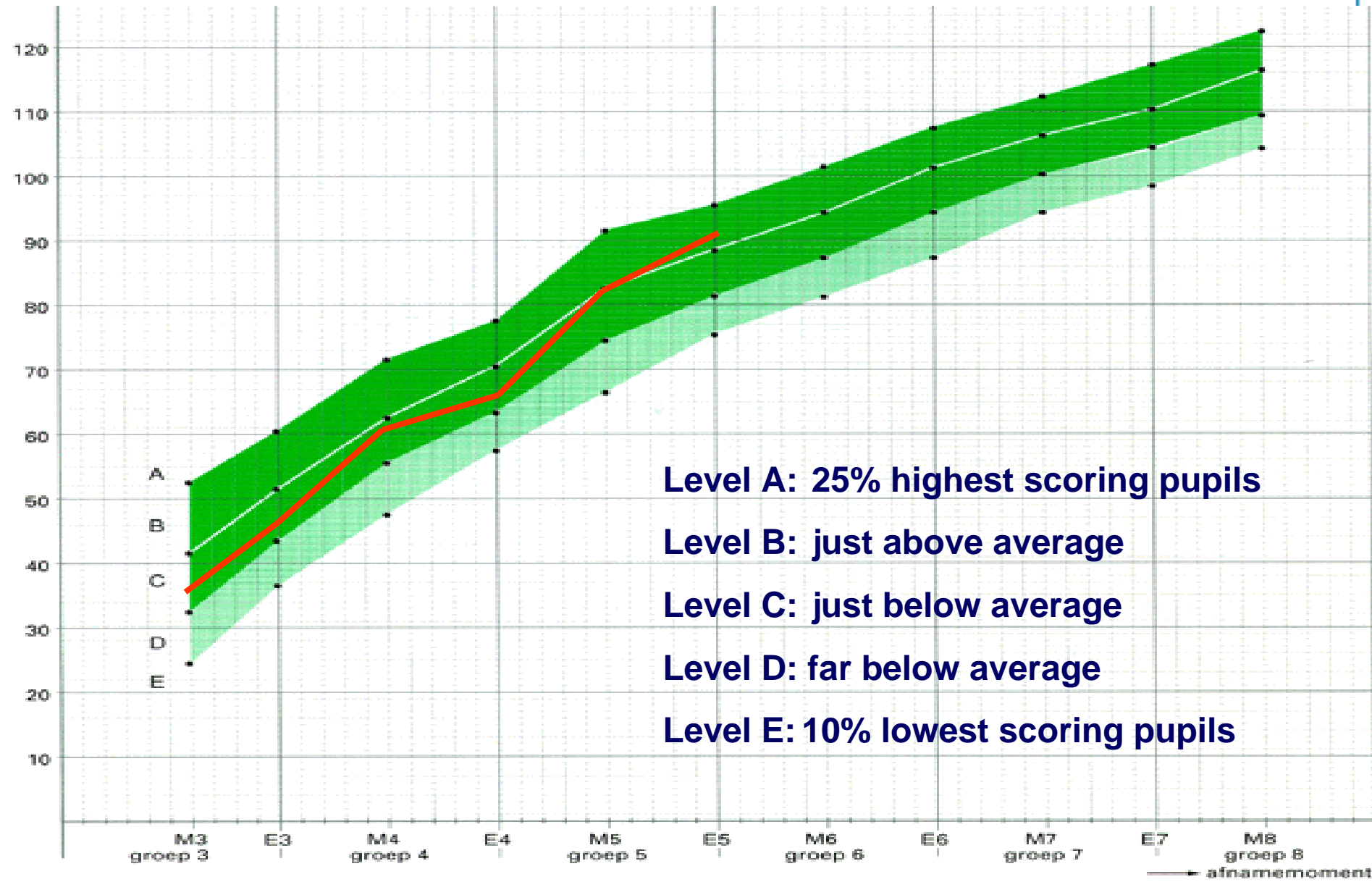
- 34
- 33
- 32
- 31
- 30
- 29
- 28
- 27

test B
June



now you know

Pupil Report

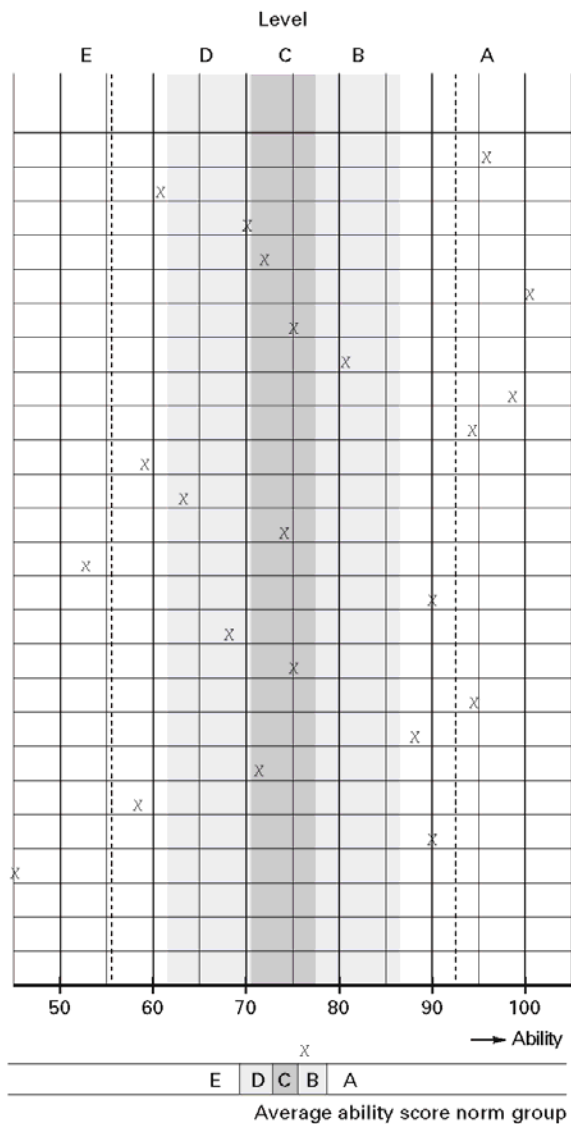


Group Report E5 Arithmetic

Date: June 2007

Name	Test score	Ability score
1 Anouk	74	96
2 Khalid	35	61
3 Eva	48	70
4 Max	51	72
5 Isa	76	101
6 Rik	55	75
7 Daan	63	81
8 Esser	75	98
9 Julia	73	94
10 Thijs	32	59
11 Michaël	38	63
12 Amina	54	74
13 Niels	24	53
14 Maud	71	90
15 Mehmed	46	68
16 Ruben	56	75
17 Sanne	73	94
18 Dara	69	88
19 Luuk	50	71
20 Justin	31	58
21 Arash	71	90
22 Kumari	16	45
23		
24		
25		

Average ability score 76.2



**Results of
Thomas**

Difficulty of items

110

100

90

80

70

60

50

← **70-44=**

← **65-9=**

← **Counting back in jumps of 2: 90 - 88 - .. - ..**

← **Counting backwards: 68 - 58 - ..- ..**

← **Counting backwards: 82 - 81 - 80 - ..**

← **11+7=**

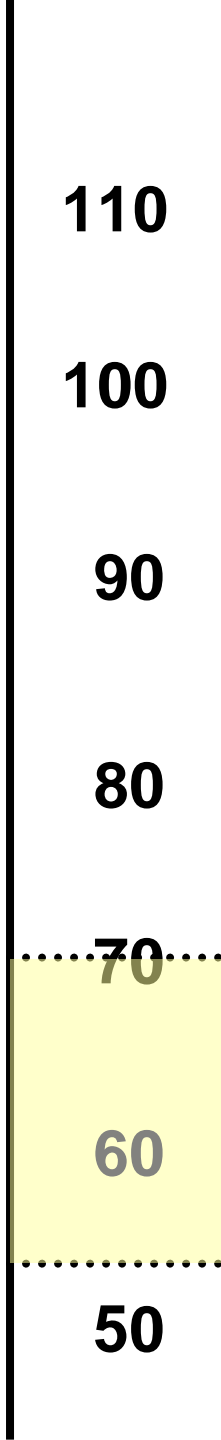
**June '07
E4**



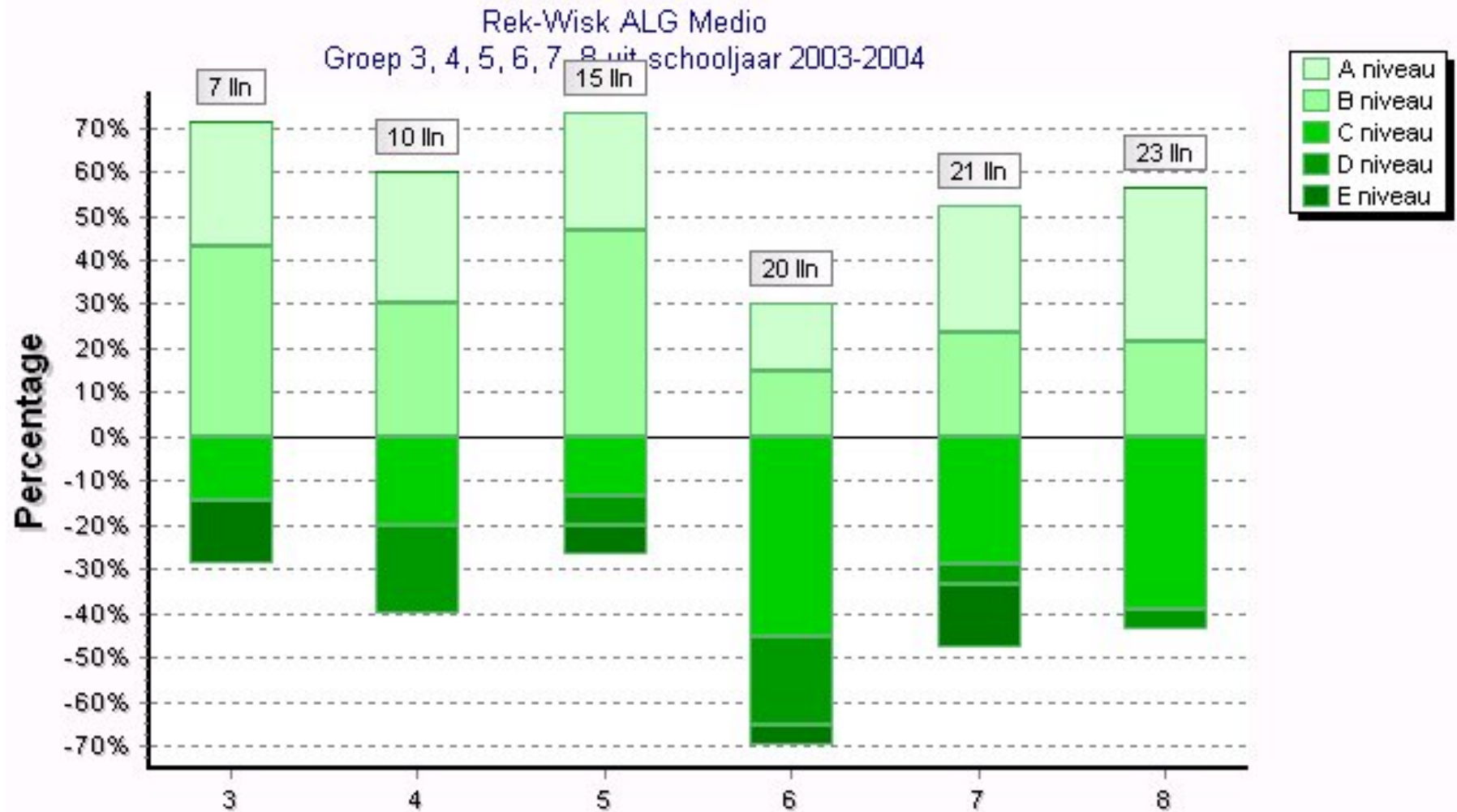
**Jan. '07
M4**



**June '06
E3**



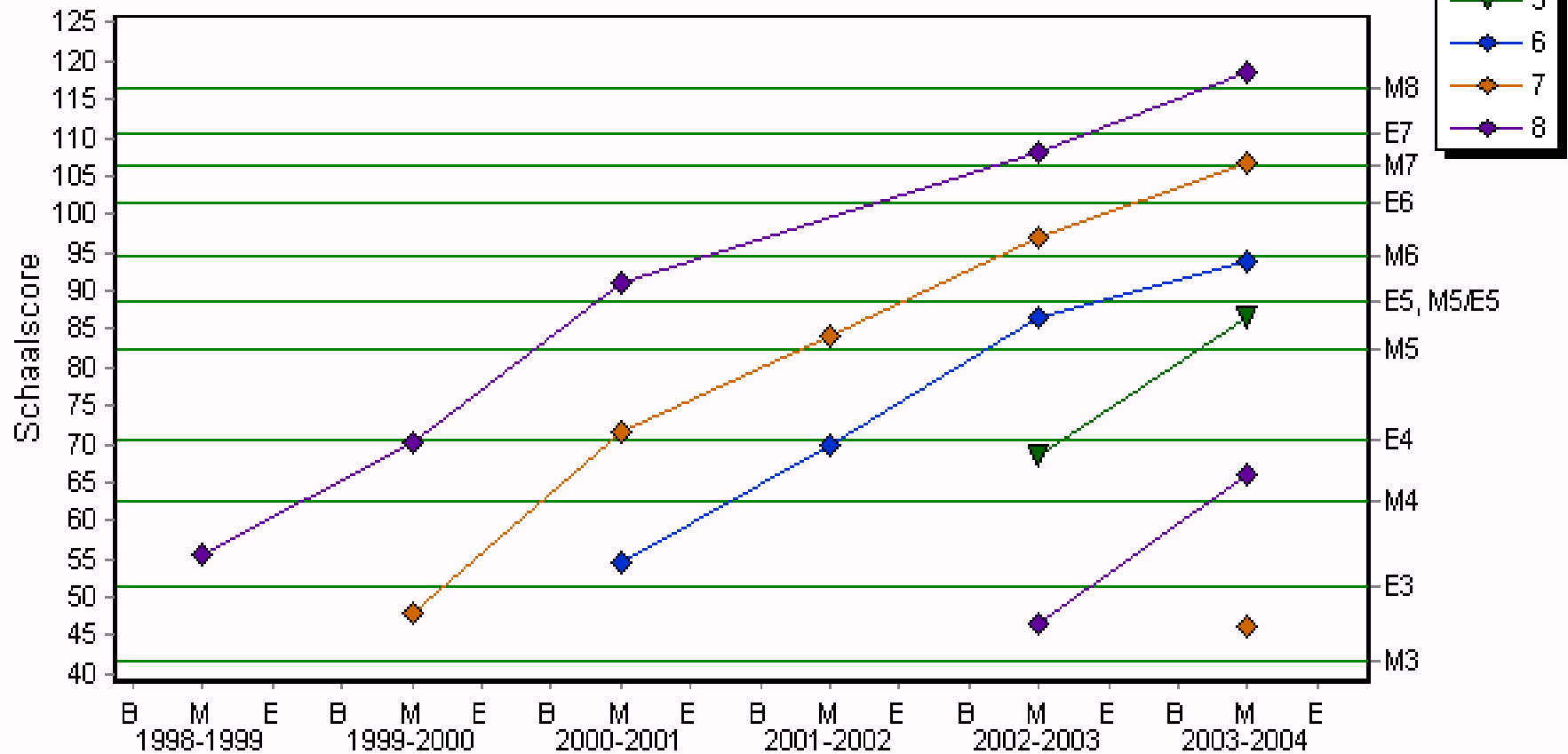
Cross section



Trendanalysis (cohorts)

Trendanalyse - Rek-Wisk ALG - Volgmodel leerlingen

Jaargroep(en) 3, 4, 5, 6, 7, 8 uit schooljaar 2003-2004
Medio 1997-1998 tot medio 2003-2004



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International Assessments

National assessment

National assessment

- Primary education
- different subjects
- detailed
- every 4 to 5 years

Longitudinal study

- Every 3 years
- Students age 5 to 18

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Secondary education: Overview of the examination system

For most school subjects

- **Internal school examinations:** weight 50%
- **National examinations:** weight 50%
- Both marks in a ten point scale: 1 -10
- School exam + national exam = ?
2
- If result is 6 or more: national certificate

Types of examinations

Internal school examinations

- Responsibility of the schools, produced by schools themselves or by test institutes
- Scored by student's own teacher

Nationwide central examinations

- Responsibility of the Dutch Ministry of Education, produced by CITO
- Scored by student's own teacher and a teacher from another school

Test construction: participants

- CEVO: the Dutch National Examination Board, representing the Ministry of Education
- CITO: examination contractor
- Cito subject specialist + construction group of subject specialist (teachers)
- Validation groups of subjects specialists and representatives of higher education (CEVO)

Overview examination procedures

- Examinations administered at schools (three-week period in May/June, resit in June and August).
- Inspectorate monitors the schools.
- Samples of scores sent to CITO.
- Information on the quality reaches CEVO and CITO through teachers, students, schools.
- Setting of standards (cut-off score) by validation group, CITO and CEVO.

Innovations

- Use of computers
- Combined central theoretical and practical exams
- Flexible examinations

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International Assessments

Entrance test in teacher training

Content

- Mathematics / Arithmetic
- Spelling

Adaptive test

Standard at 80% percentile in primary education

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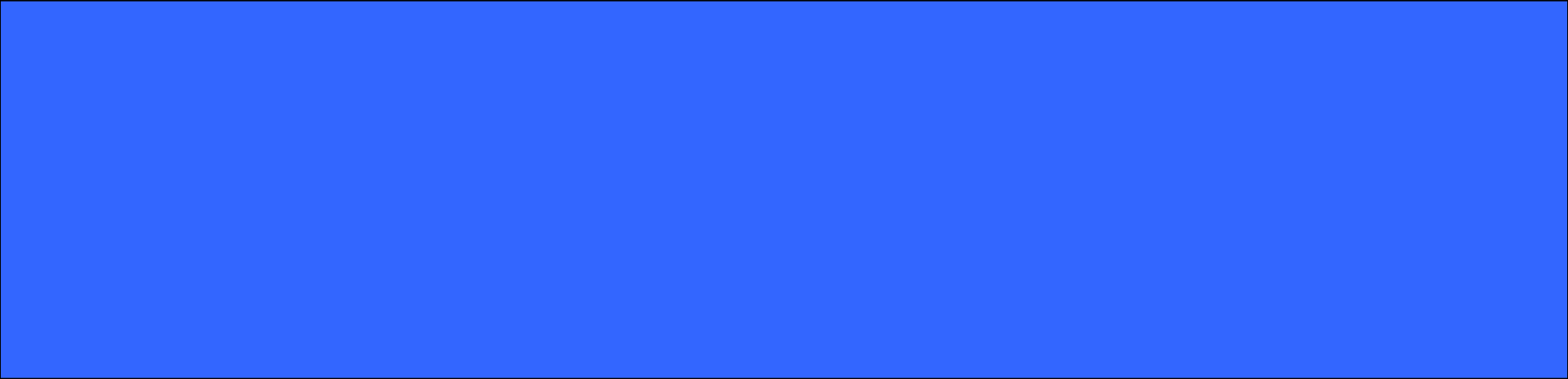
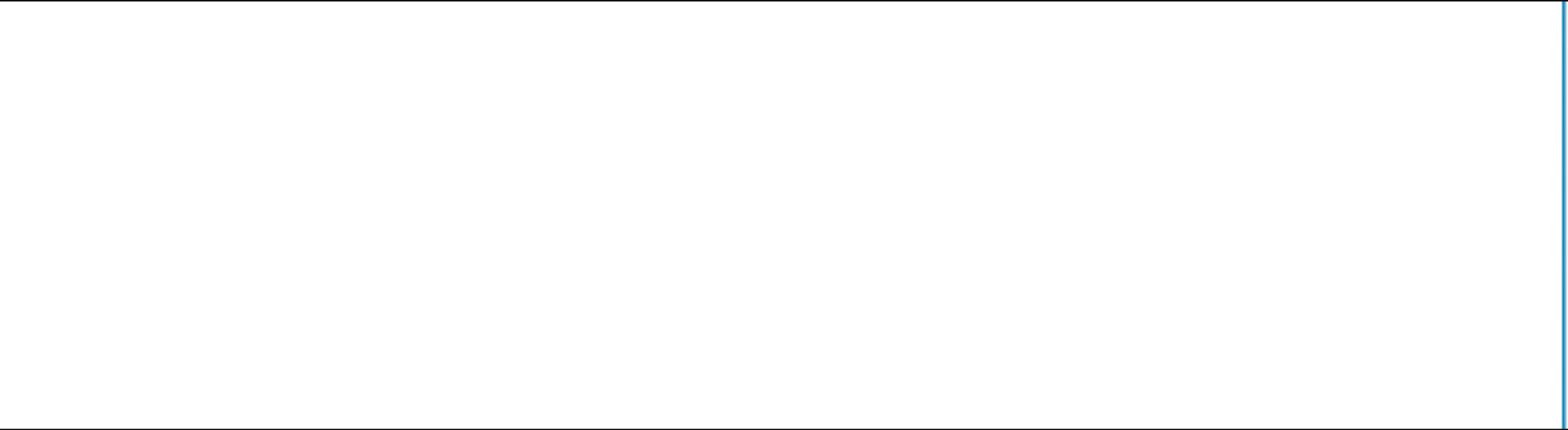
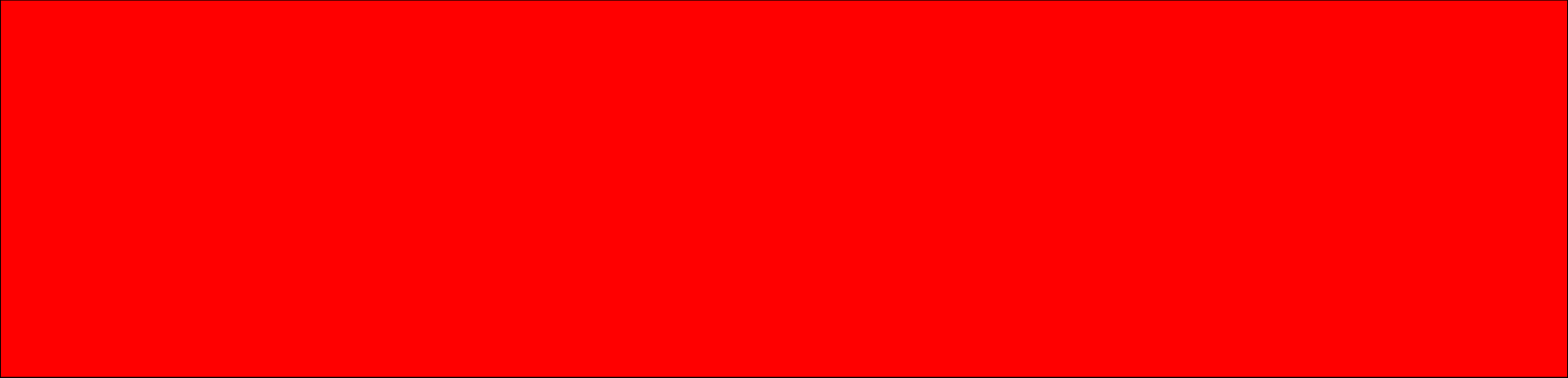
International Assessments

International assessments

- Pisa
- Pirls / Timms

Future developments in assessments

- Standards for mathematics /arithmetic and Dutch language
 - Loss of accuracy?
 - Easier to interpret?
- Added value
 - Based on formative evaluation system
 - Accountability can change the applications of the system



Characteristics of Dutch accountability

- Test based?
 - To a relatively large extent
- But do we take testing seriously?
 - To a relatively large extent
- Do we trust schools in our system?
 - To a relatively large extent

- BUT
- Delicate equilibrium
- Trust seems declining (?)



Characteristics of English accountability



Which parts are common and which parts are unique?

What is of value?

- Marking by the own teacher / central marking ?
- The story behind the numbers (value of non test based indicators)?
- The function of the test in education ?

