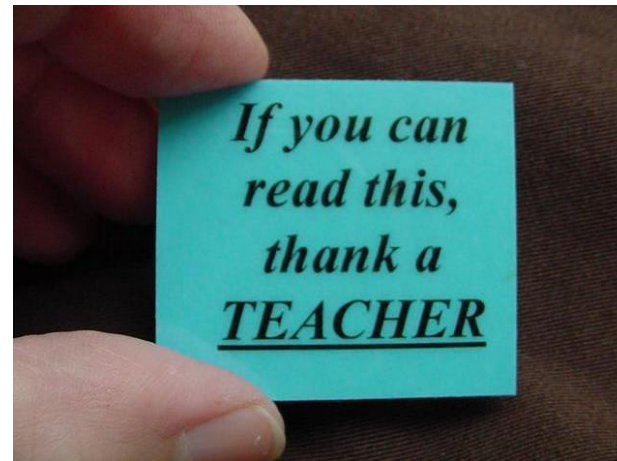


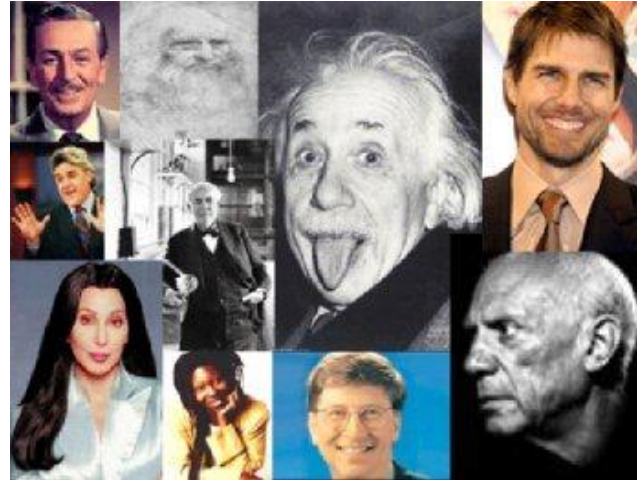


To read or not to read, that's the question.
What can we learn about dyslexia?

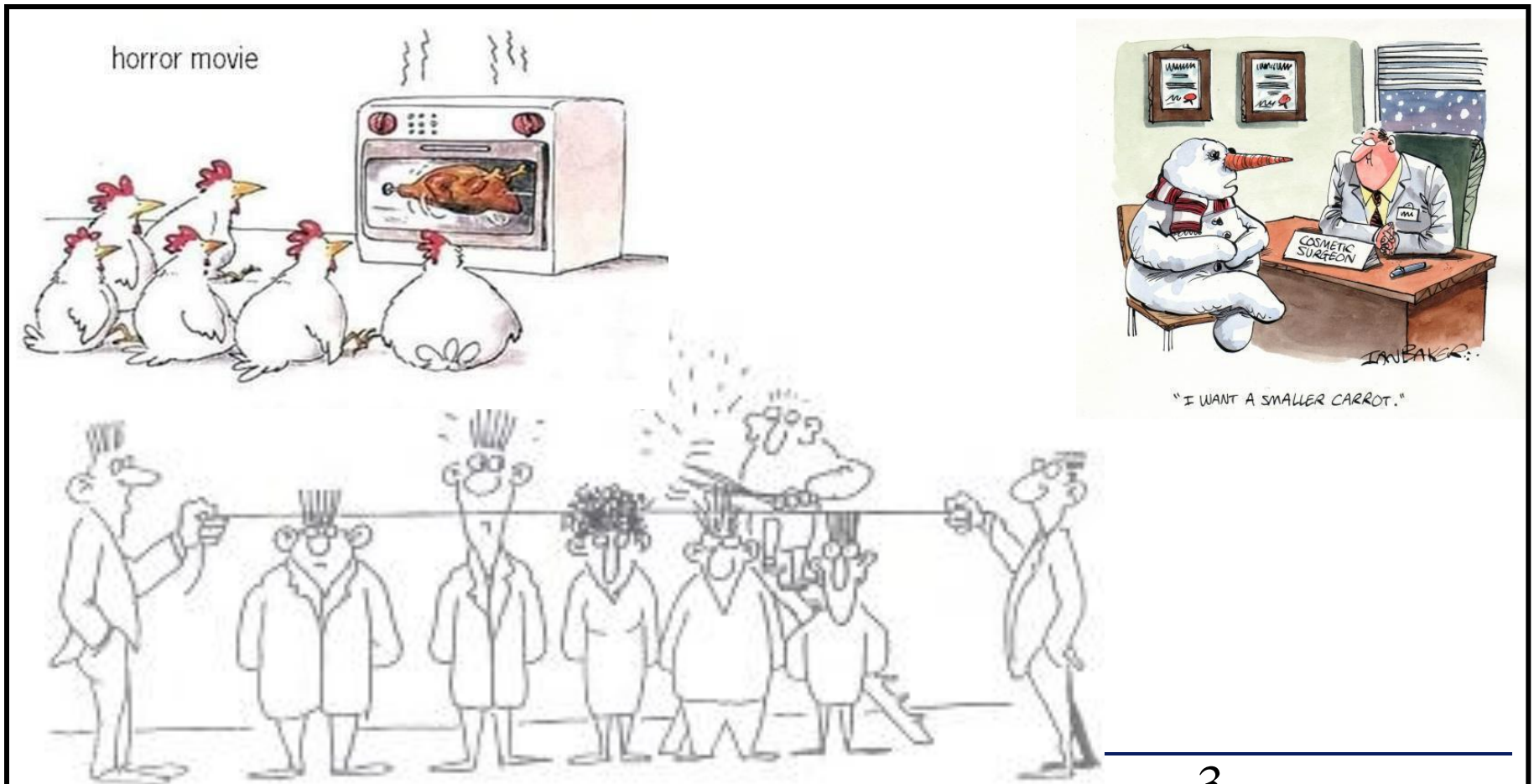


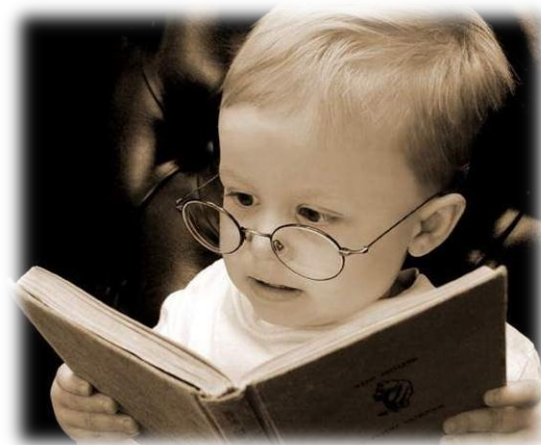
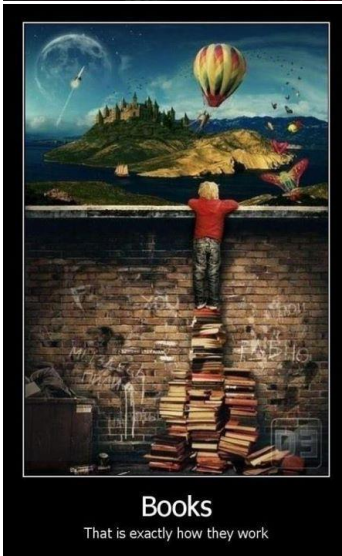
Annemie Desoete

Ugent, Artevelde University college & Sig



Reading, spelling and cut offs





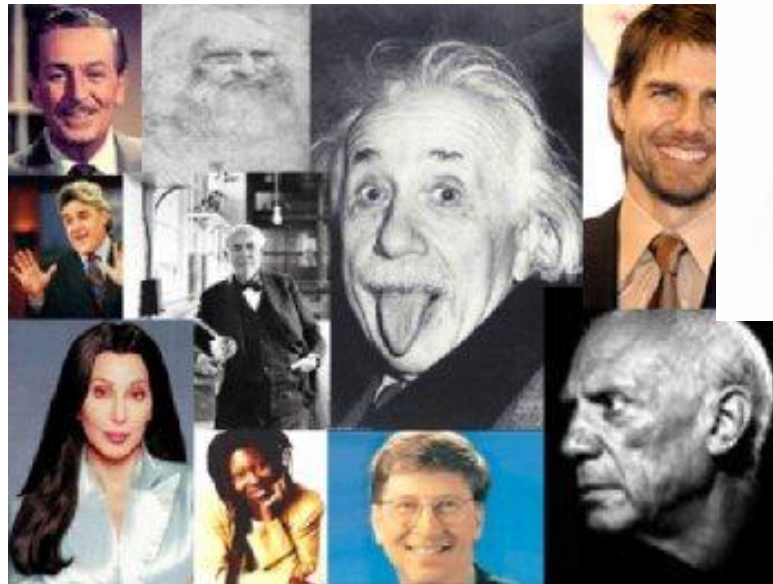
Dyslexia

<http://www.dyslexie.ugent.be>

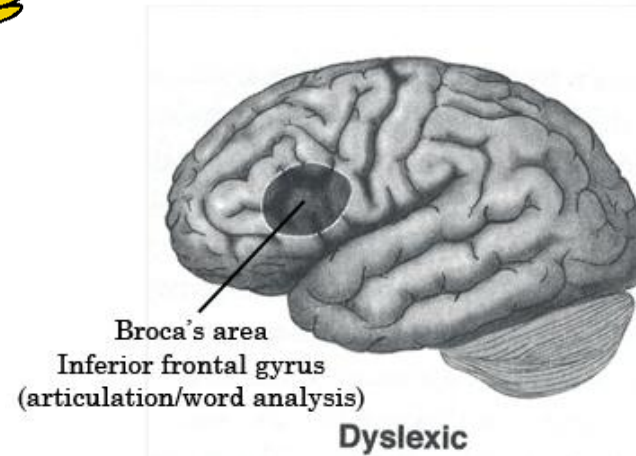
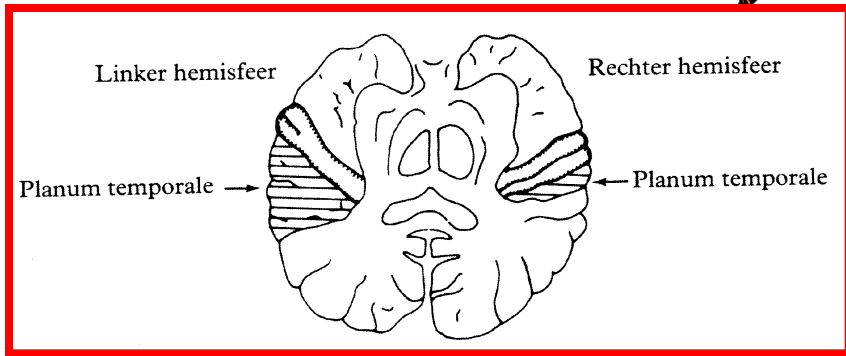
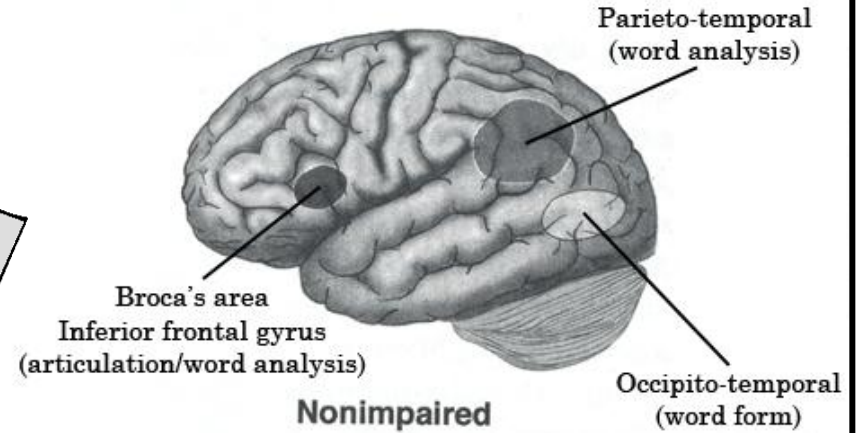
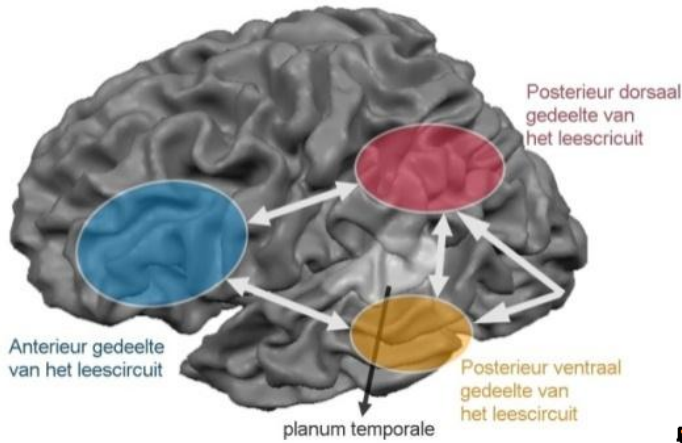


‘a’ → ‘a cat came ...’

What?

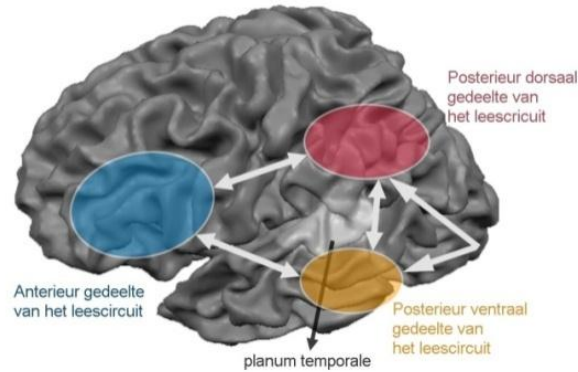


Brain?



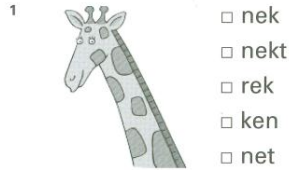
EMT:

waar	zijpad	priemen	struikgewas
kar	inham	getik	speelvergunning
been	stoutheid	oertijd	hernieuwen
min	proefstuk	aanplanten	berging
vos	lapje	slopen	nanacht
net	doch	vooruitduwen	uitspuwen
bruin	vegen	steigeren	herplaatsing
hand	koplamp	opsparen	onnozel
morgen	koelte	handelaar	medelid
eten	rekenen	diamant	zijrivier
mak	verdieping	bezig	vermindering
voorbij	geknoei	hanger	reling
hamer	genieten	puree	getuigschrift
zieke	paffen	achting	herkenning
lulak	warenhuis	opspuiten	overlootsen
trekken	aanzitten	plaatsnemen	bijeenkomst
verlaten	stelen	navliegen	tekortkoming
verhuizen	treurig	messteek	gelaatskleur
worden	voorstaan	ontschieten	beoefenaar
dichten	overlaten	scheepgaan	welsprekend
uithuilen	afwissen	boerenwoning	verslagenheid
kruid	groeve	begaafd	ontraadselen
grootmoeder	verdwijnen	pijlsnel	omslachtig
roeping	dichtwerpen	schouwing	tijdsbepaling
laan	hozen	schoenveter	ontworstelen
krumel	zorgvol	kibbelen	saluutschot
heenlopen	spiegelen	schede	wetsrol
fietsbel	stamtafel	rotsvast	oneffen
schroeven	houtvlot	frommelen	rubberaanplanting



KLEPEL:

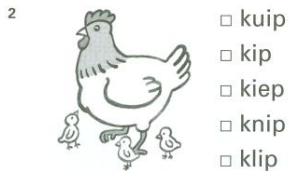
taaf	zapod	briekem	stroukgewep
vas	ijnhas	gelup	stoolvordanning
deek	stuihkaut	oeltijk	lerdieuwen
nim	truufstin	aafplenton	dergonk
gol	kepjo	drepes	nonochd
vek	roch	Keenautluwer	outpluwln
fruum	veben	steiperan	derkraatsong
jund	fiplemp	ipsporel	annasel
nargel	goelte	hosdelaar	sederab
aven	rapones	fiamont	vijruzier
baf	serdieving	podig	dervinseming
noogsij	teploei	denger	talung
zaper	megoezen	butee	gemuikschrift
hiene	zaffon	ochtung	zertonning
duihas	worénpuis	okspuilon	ivérleetsel
trinnen	oonlittek	klaansteimen	nijaaltorst
kerpanes	stebun	vodrienen	gepaltnomeng
retluiven	treukel	baffraas	bolaatsvloeg
lardon	voogstaag	intschuipen	geoeteraan
wochtel	ogerjaken	scheempaag	bérstrapind
ounlouget	ofwannin	souwentonang	terstogenheils
vreud	groeza	beguisd	antpiedselen
kraatduiper	berdwijmel	wijlspek	onvlachtig
poebing	pochtbersen	schieveng	notsberapong
laas	wozen	schautekeder	ontmertselen
steumel	nargvop	mokkelin	taluukschet
spietalin	spietalin	scheke	batskel
liertvek	kwilhogel	dotshast	inekken
schruidel	muigkrit	krobbelon	nalleroonplinteng



- nek
- nekt
- rek
- ken
- net



- roep
- sloep
- poes
- zoek
- soep



- kuip
- kip
- kiep
- knip
- klip



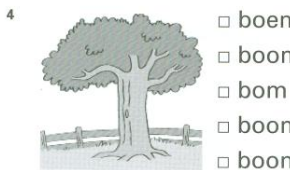
- boot
- poot
- goot
- boort
- bloot



- haan
- hang
- aan
- han
- haar



- bij
- bijt
- pijl
- bijl
- blij

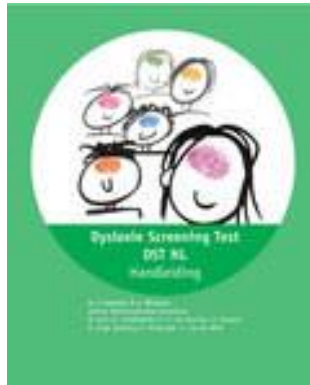


- boem
- boomt
- bom
- boom
- boon



- klam
- kan
- mak
- lam
- kam





Test 3: Woorden lezen

(alle leeftijden hier beginnen)

(enkel voor 7,5 jaar en ouder)



dier	knoop	tafel	schoorsteen	appelboom	vraagteken
nacht	gras	luiers	koffie	soldaten	figuurzaag
pijl	touw	bliksem	lichaam	boerderij	kabouters
dwerg	wieg	honing	doelpunt	telefoon	tafelkleed
bloem	klomp	gebouw	kachel	verrassing	postzegel
trein	vrouw	bezem	fietsbel	winkeldeur	jongetje
muur	sloot	armband	stropdas	broodtrommel	prullenmand

Test 5: Klanksplitsing	
Afbreekregel = 4 opeenvolgende	
1. <i>Kruiwagen</i>	
2. <i>dak</i>	
3. <i>spin</i>	
4. <i>kloof</i>	
5. <i>kraal</i>	
6. <i>schelp</i>	

6,5 jaar	
1	boom
2	vis
3	hoed
4	land
5	bij
6	zeven
7	auto
8	wesp
9,5 jaar +	
9	morgen
10	sneeuw
11	leeftijd
12	spruit
13	gisteren
14	moedig
15	tandarts
16	makkelijk
17	wenkbrauw
18	springen

2 min. spelling

Test 8: Onzin Leestest: woorden zonder tekst

(alle leeftijden hier beginnen)

(enkel voor 7,5 jaar en ouder)



dies	kwoos	tiemel	schaaskleen	ippelbaam	greustoken
hacht	grat	zoeiers	huffie	kolzoten	fulaarzeek
lijg	drouw	glikser	dachoot	boesferiej	kureiters
dwurk	bieg	husing	loemrunk	kalosoon	demelglaad
ploen	dromp	mazouw	kocher	gerrossing	pertwagel
sneig	slouw	wozem	foostul	bonkelweur	mingetje
nuur	vroot	astgand	strukpos	gleestrikkel	grallenbund
troes	kaaf	vasfool	himten	fliendosel	blukkendaam

➤ Result: SS

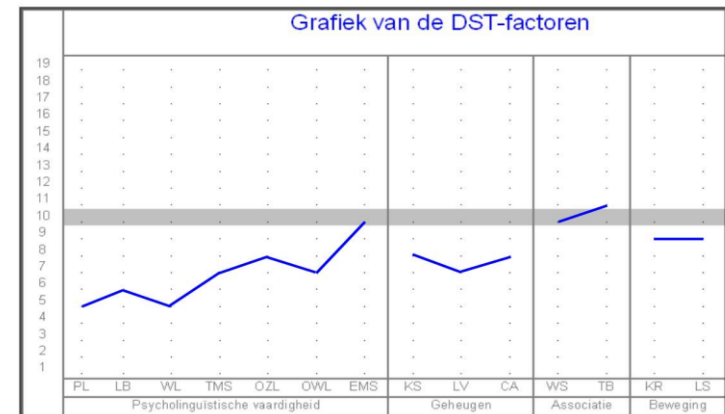
4 Factorscores

1 At risc score $PLE \leq 84$

Sensitivity 81% DL

Specificity 85%

- name words with 's' (1 min.)
- name animals (1 min.)



ITEMS	RIJMEN	SEGMENTEREN	SAMENVOEGEN	NONSENSW. NAZEGGEN
1 serpes				juist / fout
2 paddestoel		juist / fout		
3 pagverlomsil				juist / fout
4 doos	juist / fout			
5 zeurdien				juist / fout
6 tafelpoot		juist / fout		
7 ramp	juist / fout			
8 nassirgeffus				juist / fout
9 koek-je			juist / fout	
10 prosselin				juist / fout

CELF-IV (language)



SUBTEST	AREA ASSESSED	RECORD FORM		REVISED OR NEW SUBTEST
		AGES 5-8	AGES 9-21	
Concepts & Following Directions	Syntax/Metalinguistics	Core	Core: 9-12	Revised
Word Structure	Morphology	Core	Core	Revised
Recalling Sentences	Syntax/Metalinguistics	Core	Core	Revised
Formulated Sentences	Syntax/Semantics	Core	Core: 9-12	Revised
Word Classes-Receptive	Semantic Classes	x	x	Revised
Word Classes-Expressive	Semantic Classes	x	x	Revised
Word Classes-Total	Semantic Classes	x	Core	Revised
Sentence Structure	Semantics/Syntax	x		Revised
Expressive Vocabulary	Semantics	x	9 yrs. only	New
Word Definitions	Semantics	x	13-21	New
Understanding Spoken Paragraphs	Semantics/Syntax		x	Revised
Sentence Assembly	Semantics/Metalinguistics		13-21	Revised
Semantic Relationships	Semantics Sentence		13-21	Revised
Number Repetition (1&2)	Working Memory	x	x	New
Familiar Sequences (1&2)	Working Memory/Semantics	x	x	New
Rapid Automatic Naming	Semantics/Memory	x	x	Revised
Word Associations	Memory/Semantics	x	x	Revised
Phonological Awareness	Phonology/PreLiteracy	x	x	New
Pragmatics Profile	Pragmatics	x	x	New
(Observational) Rating Scales	Classroom Performance/ Social Interaction	x	x	New



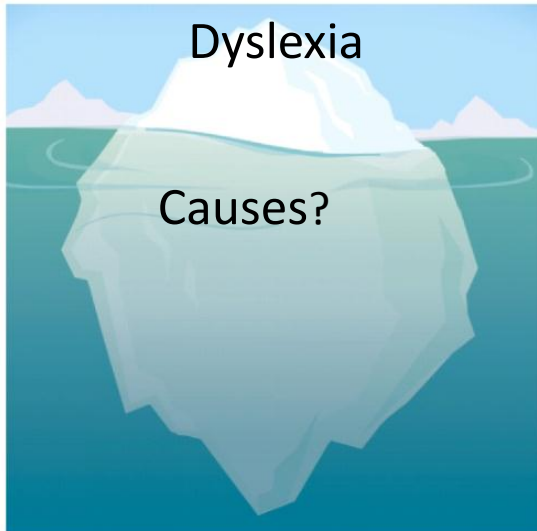
Naam: N. J. S. (J)M
Leeftijd: Leergroep: 3^o

5	10
in	schuur
lui	kleur
jaap	warm
volt	rijneus
duur	fruit
hout	slok
mos	kring
hoog	shaats
fiets	meer
hart	spoor
vlug	klapdeur
leun	fietsbel
breekt	half
zwart	shelp
rijl	stafloek



Naam:

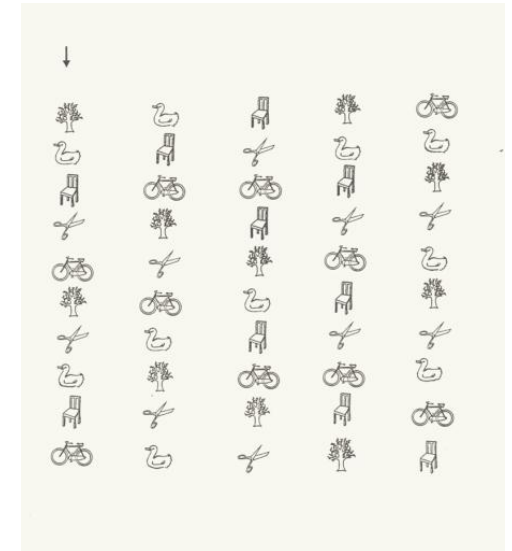
15	20
rood	muuren
bloei	logt
spring	duur
beste	tree
plank	nieuw
vlieg	beleg
zwart	verkeer
kinderen	stro
strand	meuw
draai	eerste
werkster	vla
buje	geluk
komst	zieke
kwark	ragte
to strongh	slaaphamer



- Phonological deficit
- Rapid naming deficit
- General magnocellular theory
- Working memory/ EF deficit



'Double' deficit

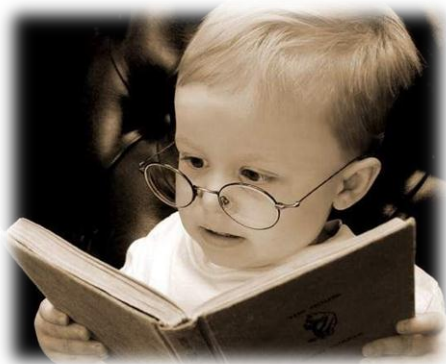


Comorbidity

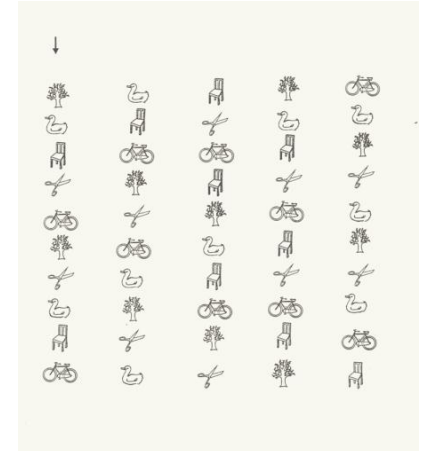


- 50 à 80% SLI (Njiokiktjien, 2004)
- 17 à 56% dyscalculia
- 19 à 54% DCD (Kaplan e.a., 1998)
- 15 à 40% ADHD (Ghesquière, 2000; Ho, Chan, Leung e.a., 2005; Mastr & Wolfe, 2005).





- Phonological awareness
- Rapid naming
- Vis. perception: discriminatie (b d p q)
- Psycho motor skills



- Letter knowledge: c, a, t
- Synthesis (c/a/t = cat)
- Automatisatation/ speed
- Reading + spelling



Test 1 – deel 2: 23 kleine letters benoemen

j	d	u	t	a
m	a	c	r	p
h	z	n	u	x
o	t	x	h	n
v	i	r	e	w
e	w	g	s	d
k	s	z	o	k
b	f	j	g	v
s	c	m	k	h
i	p	b	f	u

Adolescents/ adults

Reading : 3 à 4 times slower

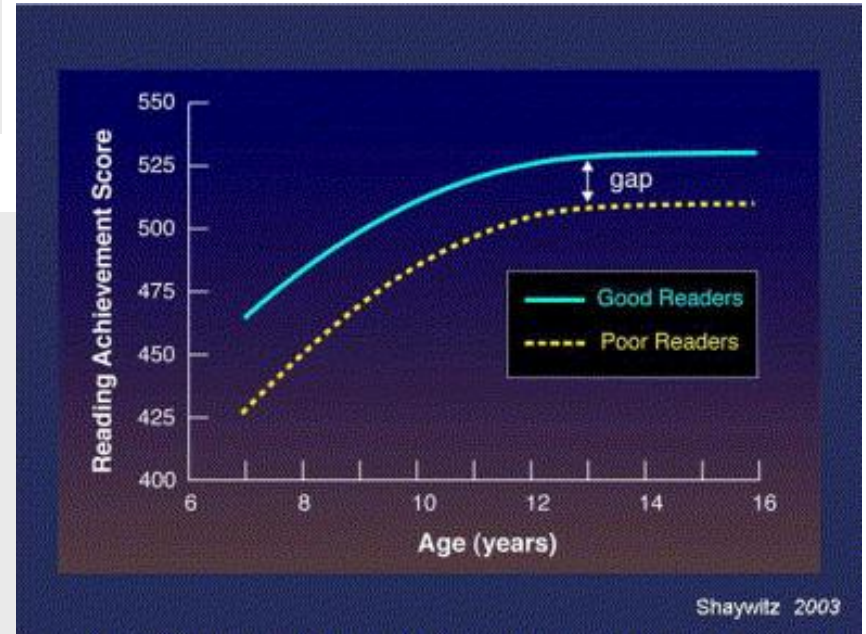
Problems with

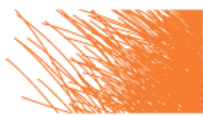
- fast reading.
- double tasks
- reading in stress conditieons (exams...)

Problems with studying

(incomplete notes, problems remembering terminology...)

Problems with foreign languages





Intervention: exercises on reading/spelling

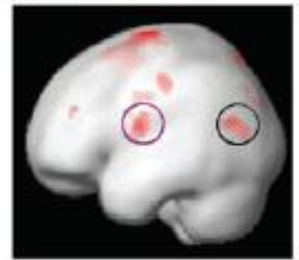
Exercises on reading/spelling
(at least till the age of 14!)



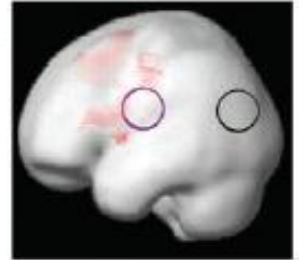
books + digital talking books

A Children with no remediation

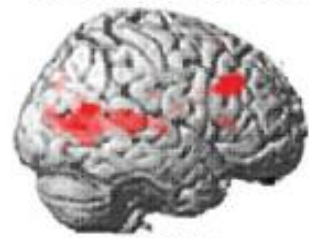
Normal reading children
while rhyming



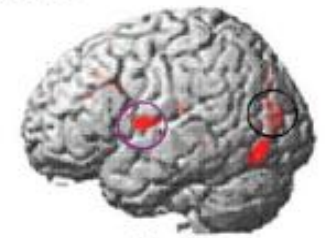
Dyslexic reading children
while rhyming
before remediation



B Dyslexic children
increases after remediation



Right



Left



FACULTEIT PSYCHOLOGIE EN
PEDAGOGISCHE WETENSCHAPPEN

Reading assistive technology

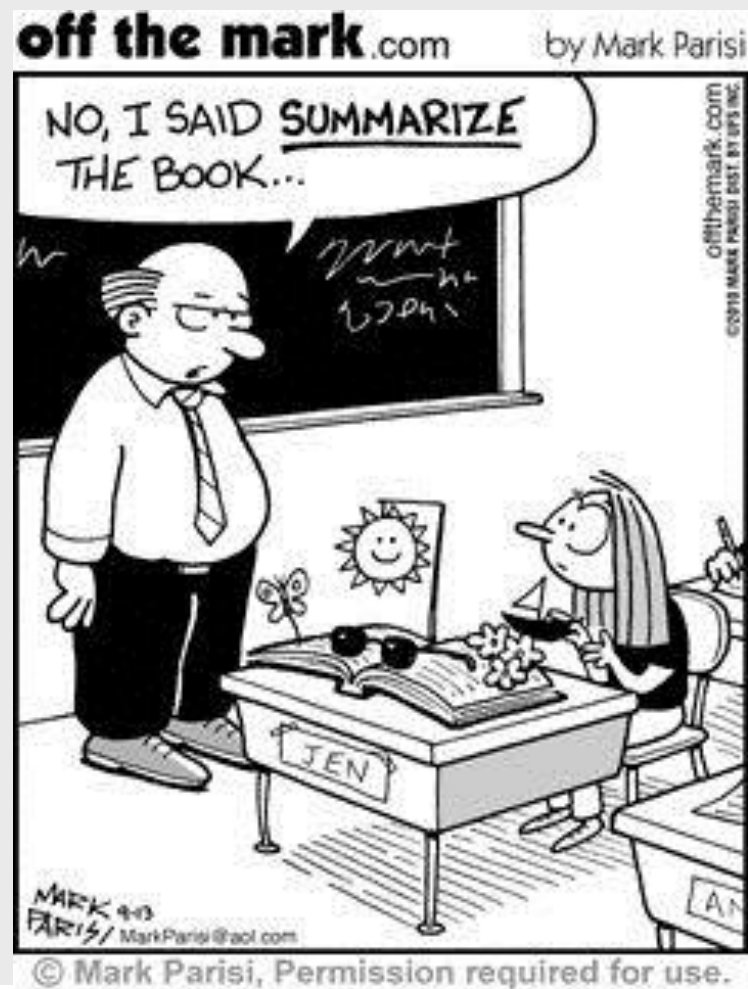
- * Help studying
- * Pleasure in reading
- * Information / literacy
- * Prevention low self esteem

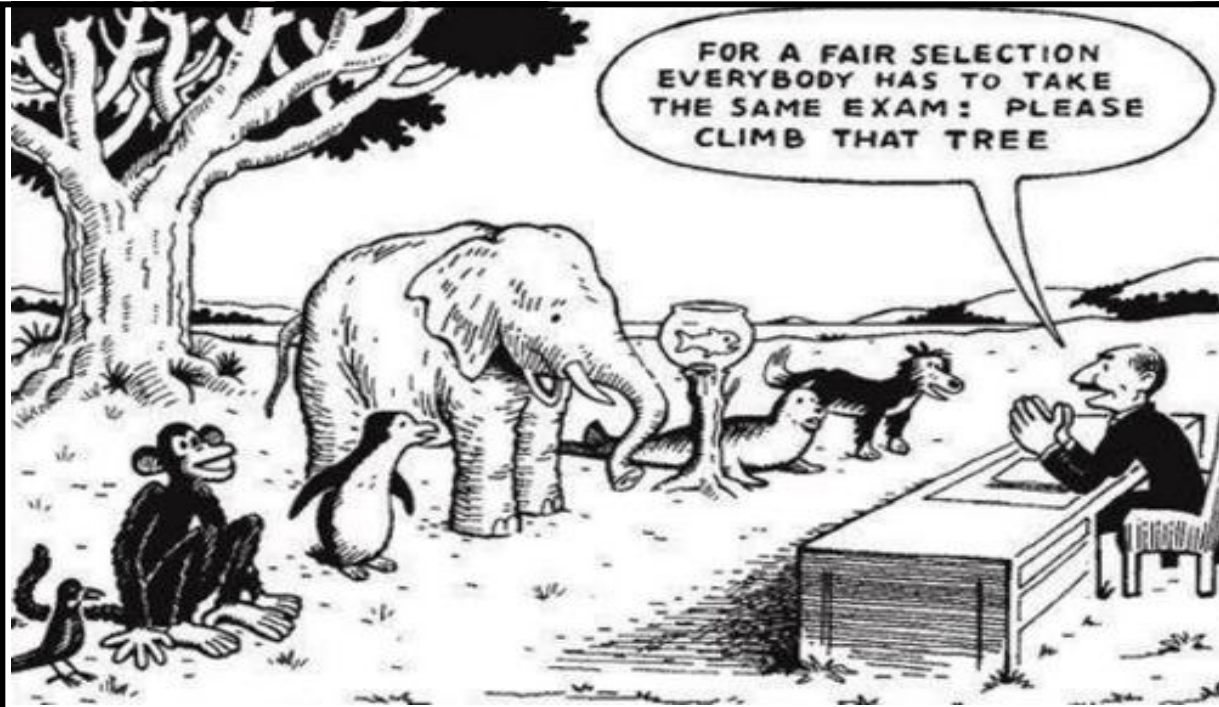




Reading assistive technology

- * Comprehension of words
- * Literacy





everybody is a genius. but if you judge a fish by its ability to climb a tree, it will live its whole life believing that it is stupid.

{Albert Einstein}



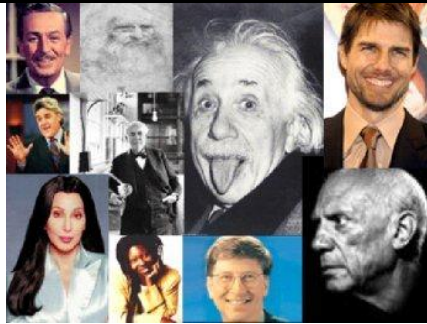


© Original Artist
Reproduction rights obtainable from
www.CartoonStock.com



search ID: cwhn301

"No spell-check?? And you call this HEAVEN??"



<http://www.dyslexie.ugent.be/> (film dyslexia)
<http://www.studerenmetdyscalculie.be> (film
dyscalculia)

<http://www.dyslexie.ugent.be>

annemie.desoete@ugent.be